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ABSTRACT

This report describes the development process of a distance education program in Sri Lanka run by the Institute of Distance Education for nongraduate teachers inservice, and presents results of the program's evaluation. Two teacher education courses--an elementary education course and a combined science/mathematics course--were offered. The courses ran for 3 years. The overall aims of the evaluation were to assess the performance of program participants, to evaluate the internal efficiency of the program, and to make recommendations concerning its future. The evaluation was carried out by two Swedish consultants, who were responsible for the bulk of the training, and one Sri Lankan. Data were collected through a survey of course graduates, classroom observation of teaching practices, and interviews with relevant officials and program staff. Results suggest that the distance program is functioning well and has become established among Sri Lankan teachers and educators as an acceptable mode of delivery for teacher education, and that the market for the program will exist into the foreseeble future. Appendixes provide evaluation methodology and a listing of interviewees. (Contains approximately 30 references.) (LL)

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Education Division Documents. No. 40

ED 365 623

Teaching Teachers through Distance Methods

AN EVALUATION OF A SRI LANKAN PROGRAMME

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U.S. DEPARTMENT OF EDUCATION
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In developing countries, inexpensive and efficient teaching methods will have to be further developed to cater for rapidly expanding and costly systems of education. Distance education has again come into the forefront as a cost-effective and pedagogically sound method for transfer of knowledge.

In its assistanc to education systems in the third world, Sweden has supported various attempts at developing more cost-effective methods of teaching.

Sweden, marked by a low population density, has a long tradition of distance education. We have found it to be relevant also to the needs of developing countries.

So far, two major distance education teacher training programmes have received Swedish support, namely the training of teachers for the Universal Primary Education reform in Tanzania in the late 70-ties, and the in-service training programme in Sri Lanka which has been in operation since 1984.

This evaluation report gives a thorough and multi-faceted description of the development process of the Sri Lankan programme. Through interviews, assessments of tests and visits to schools the evaluators have analysed the quality and impact of the programme.

Hopefully, this study will benefit other countries and programmes by giving a better insight into the problems and potential of distance education.

Stockholm, February 1989

Ingemar Gustafsson

Head, Education Division

PREFACE

This report contains an evaluation of the distance education teacher training programme run by the Institute of Distance Education (IDE), one of the institutes comprising the National Institute of Education (NIE) in Sri Lanka.

The Institute of Distance Education offers two teacher training courses for non-graduate teachers in service; an Elementary Course and a combined Science/ Mathematics Course. The courses have been in operation since 1984, and two cohorts have so far completed the programme. The courses run for three years, and are offered in both Sinhala and Tamil. The total intake to date has been 14,387.

The evaluation was carried out by a team of one Sri Lankan and two foreign consultants. The methods used included a sample survey of course graduates, classroom observation of teaching practices, and interviews with relevant officials and programme staff.

The evaluators wish to express their deep appreciation for the cooperation and help given to them in the course of the evaluation by the staff of the IDE and officials at NIE and in the Ministry of Education. We are especially grateful to Mr Lionel Amaragunasekera, Director of the IDE, for his helpfulness, patience and hospitality.

TABLE OF CONTENTS

1 THE EVALUATION STUDY. METHODS AND TERMS OF REFERENE 1

2 BACKGROUND AND DESCRIPTION OF THE PROJECT 3

2.1 Project Rationale and Objectives 3
2.2 Distance Teacher Training in Sri Lanka 4
2.3 The Nature of the Distance Programme 6
2.4 Implementation of the Project 8
2.5 The National Institute of Education 10
2.6 Teacher Training Programmes in Sri Lanka: An Overview 10

3 THE STRUCTURE AND ORGANISATION OF THE PROGRAMME 13

3.1 The Institute of Distance Education: the Central Unit 13
3.2 The Regional Study Centres 18
3.3 The Linkage Between the Courses and the School 23

4 THE OPERATION OF THE PROGRAMME 27

4.1 Enrolment and Internal Efficiency 27
4.2 The Course Materials 31
4.3 Methods of Course Assessment 40
4.4 The Tamil Programme 43

5 THE EFFECTIVENESS OF THE PROGRAMME 49

5.1 Graduate Output 50
5.2 Changes in Teaching Methods 54
5.3 Increases in Teacher Knowledge 57
5.4 Student Achievement 58
5.5 Reduction in Transfers from Disadvantaged Schools 61
5.6 Training for Married Women 61

6 THE FUTURE OF THE PROGRAMME 63

6.1 The Continuing Demand for Professional Courses for Untrained Non-Graduate Teachers 63
6.2 English Courses for Non-English Teachers 68
6.3 The Training of Teachers in Plantation Schools 69
6.4 The Training of Untrained Graduate Teachers 71

7 CONCLUSIONS AND RECOMMENDATIONS 74

7.1 Improving System Efficiency 76
7.2 Recommendations 78

BIBLIOGRAPHY 82

APPENDICES

1 Methodology of the Evaluation Study 84
2 List of People Interviewed 88

LIST OF ABBREVIATIONS USED

CDC	Curriculum Development Centre
ESA	External Services Agency
IDE	Institute of Distance Education
ITE	Institute of Teacher Education
MOE	Ministry of Education
NIE	National Institute of Education
PSEP	Plantation Schools Education Project
PSTP	Plantation Schools Training Program
SIDA	Swedish International Development Authority
SLIDE	Sri Lanka Insitute of Distance Education

CHAPTER 1 INTRODUCTION

This report presents the results of an evaluation of the distance education teacher training programme run by the Institute of Distance Education, part of the National Institute of Education in Sri Lanka.

The Institute of Distance Education offers two teacher training courses for non-graduate teachers in service; an Elementary Course and a combined Science/Mathematics Course. The courses have been in operation since 1984, and two cohorts have so far completed the programme. The courses run for three years, and are offered in both Sinhala and Tamil. The total intake to date is 14,387.

The overall aims of the evaluation were to assess the performance of teachers who have participated in the distance education programme, to assess the internal efficiency of the programme, and to make suggestions concerning its future orientation.

The specific objectives of the evaluation were as follows:

1. To describe the distance education programme as a delivery system and identify major problems and bottlenecks during the period of Swedish support, 1982-1987

2. To discuss the adequacy of actions taken by the Ministry of Education, SIDA and the Swedish consultants to rectify these problems

3. To interview a selected number of teachers concerning the relevance of the material and other supporting services provided by the programme

4. To make classroom observations on teacher/student interaction in a selected number of schools

5. To make selected interviews with principals, teachers and students about teacher performance

6. To make a comparison between the objectives and content of the training modules and the overall aims of primary and secondary education

7. To compare educational achievement in schools/classes where the teachers have been exposed to the distance education programme and schools/classes where teachers have not been included

8. To make suggestions concerning the future utilisation of the software and the network established within the programme.

The evaluation methods included a sample survey of course graduates, classroom observation of teaching practices, and

interviews with relevant officials and programme staff.

A full description of the methodology for the evaluation is presented in Appendix 1.

CHAPTER 2 BACKGROUND AND DESCRIPTION OF THE DISTANCE EDUCATION TEACHER TRAINING PROGRAMME

The distance education teacher training programme has received SIDA funding for training, equipment and allowances. The bulk of the training has been carried out by two Swedish consultants, who have made frequent trips to Sri Lanka to carry out short training workshops.

Their work will be reviewed in this chapter, along with the rationale and objectives of the project, the nature of the distance programme and the implementation of the project. A brief description of the National Institute of Education is also given, along with an overview of the major teacher training programmes operating in Sri Lanka today.

2.1 PROJECT RATIONALE AND OBJECTIVES

During the late 1970s, Sri Lanka expanded its primary and secondary teaching forces by recruiting about 27,000 untrained teachers. In 1980, it was estimated that around 35,000 of the total teaching force of 140,000 were untrained. As it was clearly not feasible to temporarily expand existing teacher training colleges purely to clear this backlog of untrained teachers, the Ministry of Education in 1981 proposed the establishment of a distance education system for teacher training.

Other reasons were also given to justify the setting up of a distance education system. The existing in-service training apparatus relying on the use of 'Master Teachers', for example, was becoming increasingly expensive and the Ministry argued that it would probably need to be replaced or supplemented in the future by an alternative, less expensive structure. As well, the Ministry wanted a network of communication which would allow them to include school managers and administrators, who at that time tended to be excluded from the existing 'Master Teacher' system. Finally, the Ministry felt there was a need for a two-way flow of information between the schools and the Ministry not then met by existing systems.

> Ultimately, what we hope to have is not merely a unit solely devoted to teacher education through distance education techniques, which will be only a part of the total set-up, but an organisation for communication that will establish links across the tasks of curriculum development, in-service training of teachers, pre-service training of teachers, school management and educational supervision. This communication unit should facilitate the flow of messages in both directions through the chain of tasks operating in the

education system (Project Proposal, 1981).

The project was thus originally conceived as having five main objectives:

1. To clear the backlog of 35,000 untrained primary and secondary school teachers within five years
2. To undertake the retraining of teachers by providing short-term courses
3. To provide specific programme-based in-service training courses
4. To provide general further-study programmes for teachers
5. To provide courses for educational supervisors.

2.2 DISTANCE TEACHER TRAINING IN SRI LANKA

The idea of distance teacher education was not new in Sri Lanka. As reported by Flinck and Wångdahl-Flinck (1981), two institutions offering teacher training courses had been established as early as 1972. The first, the Correspondence Teacher Education Programme, aimed at training older primary school teachers. This programme consisted of printed lessons sent to the participants (no assignments), as well as weekly radio broadcasts and residential courses held during school vacations. However, students were admitted only during 1972 and 1973, and the programme was discontinued in 1976.

The second institution engaged in teacher training by correspondence was the External Services Agency (ESA) of the University of Sri Lanka. As one of its courses, this agency offered a postgraduate Diploma in Education, as well as courses in pre-school education, Sinhalese, Tamil and professional English. The postgraduate diploma enabled people with a university degree to qualify as teachers. The course lasted two years, with the first year concentrating upon the theory of teaching and the second upon the practice. The theory was taught through printed lectures and contact lessons, while practical training took place under the guidance of a supervisor who visited each teacher five times every term. By 1981, 1800 teachers had enrolled in the course. Around 65-75 per cent of enrollees completed the course, with very few of these failing (five per cent).

Running parallel with the External Services Agency was the Sri Lanka Institute of Distance Education (SLIDE), established in 1976. This agency offered diploma and certificate level courses in management, mathematics, science and technology. By 1981, about 5000 students had enrolled in these courses. The consultants do not offer any comments about this institution, although it would appear from its brief to have been the most appropriate of the existing distance education institutions to run the proposed teacher training programme.

The final institution engaged in distance education was the Open University of Sri Lanka. This institution was established in 1980, incorporating the ESA and SLIDE. The ESA was to arrange courses in languages, mathematics and primary education, while

SLIDE was to arrange courses in technical and scientific subjects, as well as vocational training. As previously, students studied and completed assignments from printed material sent to them. The teachers responsible for correcting assignments were located at regional centres.

Rather than setting up its own infrastructure for distance education, the Ministry should perhaps have given more consideration to the possibility of using an existing institution, such as the Open University, to carry out distance teacher education. The Open University was already involved in teacher education through its post-graduate diploma in education, and was experienced in the offering of diploma- and certificate-level courses through the activities of SLIDE.

On the other hand, as the immediate aim of the distance teacher education project was to offer courses equivalent to those offered at the teachers colleges, there was some justification for locating it within the Ministry. Furthermore, the Ministry wanted to set up a general communication network which they could use for a variety of purposes.

2.3 THE NATURE OF THE DISTANCE PROGRAMME

Three main parties were involved in the project: the Sri Lankan Ministry of Education, the Swedish company LiberHermods, which had many years of experience in distance education, and SIDA. Direct responsibility for activites rested with the Ministry of Education in Sri Lanka, while SIDA covered the costs of the project.

Three people associated with LiberHermods were engaged to act as consultants. The main responsibility of these Swedish consultants was to carry out specialised training of the staff of the Distance Education Branch, which had been established in order to carry out the project.

On the basis of their knowledge of local conditions and consultations with the Ministry, the consultants recommended the following components as a basis for the distance teacher education programme:

a. Printed material
b. Assignments for submission
c. Contact lessons
d. Local facilities
e. Practical training.

Two choices were available in the question of printed material; either to produce full-covering study material produced specifically for the distance education course or to use study guides in combination with existing textbooks. The first option was chosen because of the lack of textbooks written in Sinhala for use in teacher training. The production of this material, in the form of study modules, took place in Sri Lanka.

The inclusion of contact lessons in the programme raised the question of where these lessons would be held. The original proposal was to use the teachers colleges as regional centres. These had the advantage of facilities such as classrooms, laboratories and libraries, as well as teaching staff. This did not prove feasible, however, and today the Regional Study Centres are located either in teacher training field centres or are attached to schools. The latter arrangement has led to some problems which are discussed in Section 3.2.

The Study Centres are used as regional distribution centres and meeting places for the trainees. The 30 Centres are staffed by full-time tutors who advise the trainees, distribute new modules, collect and mark assignments and organise and run the contact sessions.

Another important duty of the tutors is to supervise teaching practice in the schools where the trainees teach. It was originally suggested that classroom supervision be arranged through the 'Master Teachers' system already in operation for in-service training. This was a good idea because it meant, first, that there would be some integration between the two structures and, secondly, that special supervisors would not need to be employed for the distance education programme. Relying solely on the tutors to carry out these duties places a heavy load on the shoulders of tutors, discussed further in Section 3.2.

2.3.1 The Structure of the Programme

The basic organisational structure of the programme consists of a central unit, the Institute of Distance Education, and the Regional Study Centres. The forerunner to the present Institute of Distance Education (IDE) was the Distance Education Unit, established within the Ministry of Education in 1981. With the establishment of the National Institute of Education (NIE) in 1986 (see further Section 1.5), the functions of the Distance Education Unit were taken over by the NIE. This culminated in the establishment of the present Institute of Distance Education.

The unit was originally divided into three sections: the study unit, the production unit, and the administative and registration unit, an organisation which was worked out by the staff in collaboration with the Swedish consultants. Today, the IDE consists of five main sub-divisions: Course Development; Student Management; Study Support Services; Research and Evaluation; and Staff Development (for further detail, see Section 3.1).

2.3.2 The Courses Offered

The training courses were originally planned to last three years. with the proviso that those unable to complete the work in this period be allowed four-five years. Official permission for an extension must be obtained from IDE. The syllabus is intended to be the same as that used in the teachers' colleges, with the major difference that practical and theoretical training should take place concurrently throughout the course.

It was originally planned that training would take place in general elementary education, and in science/mathematics and English at the secondary level, with the eventual development of courses in agriculture and home science. All courses were to be offered in both the Sinhala and Tamil languages.

The major thrust to date has been upon elementary education and science/maths. Both of these courses began in 1984, and two courses in each subject have so far been completed. A pilot course in English for non-English teachers is going to be run this year.

Both the Elementary and Science/Maths courses are offered in Sinhala, but so far not even half of the first year of each course is available in Tamil. The materials for the pilot English course are also being prepared only in Sinhala.

2.3.3 The Target Population

The target population for the programme was untrained elementary and secondary school teachers 'with a high academic background who have not followed a course in professional education in a teachers' college and whose performance is high on tests designed to discover their aptitude for teaching, learning and following a distance education programme' (Plan of Operation).

The selection procedure was thus intended to differ markedly from selection procedures for the teachers' colleges, which were based upon seniority. However, selection to the programme is today based upon seniority (Government Gazette, 24.5.85). Teachers are bonded to the ministry for two years after completing the course, and receive automatic recognition as trained teachers (and, hence, promotion) upon successful completion of the course.

2.3.4 Financing of the Project

The Government of Sri Lanka funds local staff, provides buildings and furniture, and provides fuel for vehicles, for mailing and other miscellaneous items. The SIDA funds are utilised for consultancy services in the area of training and for local staff to make study visits abroad, for office and audio-visual equipment, project vehicles, printing, paper, laboratory facilities and for allowances to course writers, editors, assessment tutors (correspondence teachers) and the tutors manning the study centres.

2.4 IMPLEMENTATION OF THE PROJECT

Although the project has received funding from SIDA, the emphasis throughout has been upon local initiative. The original decision to introduce distance teacher training programme was taken by the Ministry of Education in Sri Lanka and, in line with SIDA policy,

funding was provided only after an official request from the Sri Lankan government.

SIDA and the Swedish consultants engaged on the project were anxious that the responsibility for establishing and running the programme should remain with Sri Lanka. This meant that the writing, production and distribution of all materials was the responsibility of the Distance Education Branch. The technical support provided by the Swedish consultants was to be only in the form of training.

In accordance with this principle, the Swedish consultants decided upon a training model which would minimise the dangers of dependence upon foreign expertise, and encourage local initiative. Instead of going to work in the Distance Education Branch as 'foreign experts', as originally suggested, they chose to run a series of short training workshops. Each workshop ran for about two weeks, and had a specific focus and target group. To date, ten national workshops have taken place in Sri Lanka, mostly during 1982 and 1983 while the programme was being prepared. Three short training courses have also been held in Sweden.

The training activities have been reported in detail by the consultants in a series of reports written after each training session. These are available from SIDA or the IDE and are listed in the bibliography.

The training of the local staff has included five different groups: the course writers, the production staff, tutors, correspondence teachers and the administrative staff. To carry out the training, the consultants produced four handbooks to be used by these different groups: a Handbook for Course Writers, a Handbook for Production and Administration, a Handbook for Tutors and a Handbook for Correspondence Teachers.

As would be expected, the first workshops were devoted to the training of course writers. Recruitment of course writers was carried out by the Ministry of Education. The main criterion for selection was that the course writer should be an experienced teacher trainer, so that s/he would be able to integrate theory and practice in the course material.

During the workshops, the course writers received training and guidance in how to write course modules. Writing continued between the workshops, so that the modules could be discussed and evaluated when the meetings took place. All modules were first produced in Sinhala, with the intention that they would later be translated into Tamil. Unfortunately, work on the Tamil modules has proceeded at a very slow pace (see Section 4.4).

The production staff began their training in the second workshop. These workshops were conducted by the technical consultant from LiberHermods, and involved editors, layout personnel, illustrators, photographers, proof readers and typists.

The technical consultant was also responsible for advising the Distance Education Unit on the type of technical equipment they should purchase in order to be able to produce the modules. As a result of his recommendations, the IDE now has equipment enabling it to produce master copies ready for photo-set printing.

At present, all printing is subcontracted out to local printing companies. Although the IDE was supplied with an offset press by SIDA in 1986, this press has not yet been installed. One reason for this delay has been the lack of appropriate premises, as well as the moving of IDE to Maharagama when it became part of the NIE. There has also been some uncertainty about the organisation of NIE printing facilities. Finally, the Institute lacks qualified printing staff. However, it seems likely that all of these problems will be overcome in the near future, and that the printing press will become operational before the end of the year. This issue is discussed in greater detail in Section 3.1.

The training for tutors (the counsellors at the study centres) commenced in 1983. As a large number of tutors was envisaged in the future, it was decided to train only a nucleus of tutors who would then be able to pass on their training to others. Several of the tutors were also course writers, so that they would later have the opportunity to get feedback from students on their modules and to study the coordination between the modules and the face-to-face training in contact sessions.

A similar technique was used in the training of correspondence teachers (those correcting assignments). Only a nucleus was trained, using the Handbook developed by the consultants. This nucleus will use the Handbook to train other correspondence teachers themselves in the future.

Considerable time was devoted in the workshops to discussions about the organisation of the Distance Education Unit. Emphasis has been laid upon the staff defining the duties and responsibilities of the units, and identifying those areas where cooperation is necessary.

The staff of the administrative unit began their training in 1983. Issues covered in the workshops included the admission and registration of students, the distribution of material, the processing of assignments and the registering of student progress. Particular stress was laid upon the handling of assignments and the registration of student progress in order to develop a stream-lined operation. As the Flincks point out, "this is a critical point in distance teaching". The actual performance of the distance programme in this respect is discussed in Sections 3.1 and 4.3.

Training of the research and evaluation section did not begin until 1985, almost two years after the first course had commenced. As the emphasis of the section was to be on the collection of basic data for the development of the programme, especially the revision of course material, the staff were trained in simple survey methods. Questionnaires have been sent to trainees to assess their attitudes towards various aspects of the courses, and the data analysed and written up as part of the training. However, this work has been hampered by a lack of staff, as Section 3.1 shows.

From our observations and interviews with IDE staff, it appears that the training model used by the consultants has worked well. The workshops have been held frequently enough to enable the consultants to identify potential problems and bottlenecks. When a particular problem was identified, such as the fact that too much

lecturing was at one time taking place in the Study Centres, it was dealt with through selective action in the workshops.

At the same time, the fact that the consultants have not worked full-time in Sri Lanka means that that self-reliance has been encouraged from the start. This avoids the danger of a project suffering when consultants finally leave, as so often happens. It is possible that some problems, such as that with the printing press, might have been dealt with more easily and quickly by someone on the spot but, on balance, we consider that the model chosen was the best one.

2.5 THE NATIONAL INSTITUTE OF EDUCATION

As mentioned above, the Institute of Distance Education was originally established as the Distance Education Branch within the Ministry of Education. With the formation of the National Institute of Education, the distance programme was relocated to the NIE, becoming the Institute of Distance Education.

One of the functions of the NIE is the professional development of educational personnel. This work is carried out through five institutes:

1. Sri Lanka Staff College for Educational Administration
2. Higher Institute for English Education
3. Institute of Distance Education
4. Institute of Teacher Education
5. Institute of Aesthetic Education.

Although the focus of this evaluation is on the third of these institutes, the Institute of Distance Education, some consideration of the work of the Institute of Teacher Education has also been necessary.

The Institute of Distance Education is charged with the responsibility for planning, designing and implementing distance courses for the professional development of teachers in service. Its organisation and effectiveness in carrying out these functions form the central themes of this evaluation.

2.6 TEACHER TRAINING PROGRAMMES IN SRI LANKA: AN OVERVIEW

Many different institutions apart from the IDE are involved in the task of teacher training in Sri Lanka. A variety of pre-service and in-service courses are offered by universities, colleges, and various institutes within the National Institute of Education.

2.6.1 Training for Graduates

As a result of the Ministry of Education's decision to discontinue the practice of releasing graduate teachers on full pay for post-graduate training, most teacher training for graduates now takes place through part-time or distance courses. The only exceptions are the TESL courses offered by the University of Colombo and the Higher Institute for English Education at NIE, for which graduates can obtain full-time release.

Post Graduate Diplomas are also available to limited numbers of students at the Faculties of Education at the Universities of Colombo, Jaffna and Peradeniya. These are two-year, part-time courses, attended mainly by teachers from private schools (about 150 in total per year).

The main institution offering a Post Graduate Diploma in Education is the Open University. This two-year course is given in the distance mode to teachers who have been in service for five years. Current enrolment in the Post Graduate Diploma is 2800.

In 1986 the Institute of Teacher Education at NIE began a one-year Post Graduate Certificate in Education for teachers who have been in service for three years. It is offered as a distance course and operates through regional centres, as does the Open University course. So far there has been only one intake of around 500 into the course, but a new intake is planned for 1989. The Certificate aims to be equivalent to the Open University Diploma and is recognised as such in terms of salary, but not otherwise. The two courses operate through quite separate structures, but some moves are now being made towards increased cooperation.

2.6.2 Training for Non-Graduates

Until recently, all teacher training for non-graduates took place as in-service training. The main vehicle for this training was the Teachers' Training College. There are at present 16 training colleges, 10 operating in Sinhala and six in Tamil, with each college specialising in different subject areas. The courses cover three years and are intended for serving teachers with O-level or A-level school-leaving qualifications. The first two years of the course are full-time residential, while the the third year consists of teaching practice in schools. Teachers' training colleges currently accept around 2000 teachers per year.

This system of in-service training has now been supplemented by a system of pre-service training. The intention is that all teacher training will eventually take place as pre-service training, so that the recruitment of untrained teachers into the teaching force can cease.

Pre-service training takes place in the newly-established Colleges of Education. Seven of the 10 planned colleges are currently in operation. An eighth college now under construction will be aimed primarily at the training of teachers in plantation schools. Each college has particular subject area specialities, and all require A-levels for entry. The annual output of trained

teachers from the Colleges is around 1500.

In quantitative terms, it is the IDE which provides the largest training programme for untrained non-graduate teachers. The programme was established with the specific purpose of clearing the backlog of untrained teachers in service as rapidly as possible. The size of the backlog rendered this task beyond the limited capacity of the teachers' training colleges.

As described above, the IDE offers two courses, an Elementary course and a Science/Mathematics course. Both courses are run as decentralised distance courses, and cover three years.

The first admission of trainees to the programme took place in December 1983: 3093 to the Elementary Course, and 1591 to the Science/Maths Course. Since that time, there have been a further three intakes into both the elementary and science/maths courses, giving a total of 9211 for the Elementary Course and 4640 for the Science/Maths course. This means that 14,473 teachers have so enrolled in the distance courses in the Sinhala medium.

In the Tamil medium, there has been only one intake, with a second intake planned for August 1988. In the first intake, there were 436 trainees in the Elementary Course and 186 in the Science/Maths course. It is hoped that a further 350 trainees will be admitted in 1988.

In the Sinhala medium, the first intake completed the programme in 1987, and the second intake will complete in 1988. This means that, by the end of 1988, the distance courses will have trained approximately 5000 Elementary teachers and 2000 Science/Maths teachers.

The enrolment, dropout, pass rates and internal efficiency of the distance courses are discussed in more detail in Sections 4.1 and 5.1.

CHAPTER 3 THE STRUCTURE AND ORGANISATION OF THE PROGRAMME

In this chapter, the structure and organisation of the distance progamme will be examined. Three levels will be considered: the central level, the regional level, and the school level. The chapter thus has three main sections, dealing with the Institute of Distance Education (the central unit), the Study Centres, and the linkage between the distance programme and the schools.

3.1 THE INSTITUTE OF DISTANCE EDUCATION: CENTRAL UNIT

The Institute of Distance Education is the central, coordinating unit for the distance programme and is located in Maharagama, on the outskirts of Colombo.

3.1.1 Organisational structure

Since December 1987, the IDE has been loosely divided into five sub-divisions or sections. These are:

Course Production and Development,
Student Management and Administration,
Study Support Services,
Research and Evaluation,
Staff Development.

The phrase 'loosely divided' is used to describe the organisational division because many of the functions of the Institute overflow from one section into another. This is causing some lack of precision in job description and individual responsibility and, in our opinion, increases the problems of effective management.

1. Course Development and Production

The main characteristic of a distance education system is the separation of teacher and learner in time and space. The main vehicle for bridging this separation is printed teaching material. Such material must be carefully designed to match the learner's level of understanding and the conditions under which the learner operates. It must encourage and stimulate the student to continue learning, it must be easily readable under poor lighting conditions (if those are the conditions under which the target group operates), and it must be regularly and consistently available as and when required by the learner.

Meeting these criteria is the function of this section of the IDE. The course writing teams are formed by trained course writers, subject specialists and other resource persons, many of

whom work full-time in schools and colleges and thus work only part-time for IDE. The course writing teams meet for discussions during weekends, under the editorial guidance of a full-time member of the Institute. This same editor then supervises the material through the technical stages of page design, artwork, and printing, referring back to the writing group where necessary.

2. Student Management and Administration

Next to the development and production of effective teaching materials, monitoring the progess of the students and maintaining readily accessible up-to-date student records are probably the most important elements of a distance teaching system.

This section is not only responsible for these elements but, in addition, organises the distribution of all learning materials to the student teachers through the Study Centres, and administers the moderation (re-marking) exercise performed on student assignments sent in by the centres.

3. Study Support Services

While the main teaching thrust in a distance teaching progamme is through the medium of its teaching materials, research has shown that the effectiveness of such material is greatly improved when face-to-face tutoring and group discussions are built into the system. Drop-out rates can be significantly reduced by providing opportunities to discuss study problems or difficulties with the material itself. In addition, for courses such as science which involve a practical component, group sessions with the appropriate resources are essential.

The Study Support section is responsible for supervising the Regional Centres and, in cooperation with them, organising a programme of study circles, five-day vacation courses and practical sessions (see Section 3.2 on the Regional Centres).

4. Research and Evaluation

In a sense, all teaching programmes have a research and evaluation aspect but, in the case of a distance teaching system, particularly one which is undergoing growth and change, constant feed-back and research into the effectiveness of the teaching materials, the needs of the students, and the availability of future clients are essential.

This section also has the responsibility for monitoring and assessing the progress of teachers through the courses, and in their classroom teaching.

Course assignments are assessed at the regional level by tutors working to prescribed marking plans, and the grades awarded sent to the Institute for incorporation into student records. However, approximately 10 per cent of the assignments marked at regional level are sent on to the Institute for moderation by this section before being returned to the trainee.

5. Staff Development

The function of this section is to design schemes for staff development and implement them through a programme of regular training workshops for course writers, tutors, administrative and technical staff.

3.1.2 Shortcomings in the Organisational Structure

These brief descriptions of the functions and responsibilities of each section of the IDE provide a basis from which to examine two serious problems in the present system: the lack of clear job descriptions, and understaffing.

Because the workload is high, and the staff of the Institute relatively small, many specific jobs are taken on by people from different sections leading to a blurring of role definition and uncertainty in the assumption of responsibility.

The clearest need is to separate the academic functions of course design and development; the technical processes of production and distribution; and the administrative functions of student records. While there are advantages in having one person supervising a particular module through all stages of its development, it is an extravagant use of limited manpower and often results in an individual working in areas for which he/she is not trained or is personally unsuited e.g. writers may not have the technical expertise to contribute to layout and printing processes, teachers are often unsuited to and frustrated by the clerical processes of record keeping and administration (a situation we observed in the records section of Student Management and Administration).

Accordingly we would suggest that consideration be given to the splitting of 'Course Production and Development' into two sections: 'Course Development and Revision', and 'Material Production and Distribution' (the latter function shifting from student support services thus enabling that section to improve supervision of the Regional Centres through more visits).

Student records should be processed by qualified clerical staff, thus releasing teaching staff for more appropriate duties. Since the Institute is in the process of moving over to computerised records, it would seem a propitious time to make changes to the staff allocation of duties.

There appeared to be no serious research being done under the section 'Research and Evaluation'. This is not to say that the staff in that section are not doing any work, but to make the point again that the blurring of job definition means that the section is committed in other directions. Moderation amd marking of assignments takes much of their time, and helping to record teacher grades takes most of the remainder.

Inevitably, technical staff will need to consult writers sometimes, teacher records of assignments need to be monitored by academic staff who provide pastoral care, and tutors need to be able to access records in order to evaluate progress. But if the basic job lines are more clearly delineated, individual

members of staff will have a better understanding of their responsibilities and will be more readily accountable for the effective discharge of those responsibilities.

Table 3.1 presents the current establishment and staffing levels for the five sections. The Student Management and Staff Development sections have been combined, as these sections together share one Chief Programme Officer.

As can be seen, the current staffing levels are very uneven in relation to the established positions. The Production and Development section is well-staffed (87 per cent of establishment), but the other three sections are all operating with less than 50 per cent of the staff allocated. The Research and Evaluation, and Study Support Services, sections are particularly badly off.

Table 3.1 Staff Allocation, IDE, 1988

Staffing Position	Production and Development	Student Management + Staff Development	Study Support Services	Research and Evaluation
Establishment				
Chief PO	2	1	1	1
PO	8	16	4	2
Assistant PO	5	12	5	3
Total Establishment	15	29	10	6
Appointed				
Chief PO	1	1	1	1
PO	3	6	-	1
Assistant PO	1	5	-	-
Total Appointments	5	12	1	2
Seconded (MOE)				
Total	8	2	-	-
Current Staff				
Total	13	14	1	2
% of Establishment	87	48	10	33
Appointments Pending				
Chief PO	1	-	-	-
PO	6	7	-	-
Assistant PO	-	2	-	-
Total Pending	7	9	0	0

PO=Programme Officer

Source: IDE, NIE

The 'appointments pending' figures in Table 3.1 may seem confusing when first compared with the current staffing position.

However, it should be remembered that current appointment criteria require a three-year secondment to the IDE before appointment as a Chief Programme Officer, and a two-year secondment for Programme Officer. In other words, some of those people currently on secondment are due for appointment.

This procedure protects the position of those already on secondment, and should ensure appointees who have experience. However, it actually handicaps the Institute in attracting 'middle management', career-oriented officers.

It would appear prudent to create a mechanism for 'acting appointments' so that where no appropriately qualified person has been seconded for sufficient time, someone can be appointed to do the work, in an acting capacity, until such time as the period of IDE experience has been fulfilled. The confirmation of appointment should then be virtually automatic.

Because the NIE is not a government body, people leaving the government service and joining the NIE forfeit all pension rights they may have accumulated in government service, in exchange for admission to a Provident Fund (Staff plus Organisation contributions leading to a cash payout on retirement).

While such a scheme may be attractive to a person nearing the end of pensionable service, it offers no incentive to the younger person.

The consequence of this staffing policy is that the Institute is largely staffed by older officers and younger individuals on secondment who are likely to ask for transfers back to government service at the end of their period of secondment in order to protect their pension rights, thus denying the Institute an establishment of young reasonably experienced staff.

Overall, the current staffing level appears to be at some 50 per cent of establishment. The adoption of the above procedure might enable a 'Technical Coordinator' to be appointed to head up a production and distribution section, and 'data collection clerks' appointed to relieve the congestion and job dissatisfaction noted in the records section.

If the Technical Coordinator has experience with off-set printing, the concommitant commissioning of the facilities already available would significantly improve the current bottle-neck in availability of course materials - particularly in the Tamil medium.

In any case, urgent priority should be given to the filling of all vacant posts to relieve the pressure on existing staff and to assist the Director in creating a structure with more clearly defined job descriptions and responsibilities.

3.1.3 Physical Facilities

The IDE is housed in three buildings:

a) a central administration building which accommodates the Director and records staff,

b) a two-room building consisting of a workroom and a darkroom. The workroom contains the printing press, light table, and layout desks. The darkroom contains the camera for the preparation of plates and developing facilities.

c) a renovated ex-student hostel complex. The rooms are used as offices for other heads of sections, other staff, and the computer.

No science practical facilities are available at the Institute, and since most of the writing of modules is done by teachers and College lecturers who presumably try out the experimental work in their own schools and colleges, it might be thought none is needed. However, in the long term, and considering some of the possible directions for development suggested elsewhere in this report, consideration should be given to the provision and equipping of a small multi-purpose laboratory for the development of approriate practical work.

3.2 THE REGIONAL STUDY CENTRES

Most distance teaching systems include opportunities for face-to-face contact between student and student, student and tutor. Such contact, providing the student with moral and pedagogic encouragement and support, is an essential feature of the distance programme.

The IDE has built its trainee support services on the concept of regional centres. There are 30 such centres, 23 Sinhala-medium and seven Tamil-medium, distributed throughout the island. The Regional Study Centres give guidance and counselling where necessary, provide trainees with opportunities for engaging in practical activities pertaining to the course where school facilities are inadequate, facilitate interactions with other trainees, provide a venue for group activities and, in addition, provide a focus for the administration of the system.

A less tangible, but equally significant, role of the centres is to encourage the growth of a 'group identity' for each particular intake of trainees. This reduces the sense of 'aloneness' which can have a powerful demotivating effect on distance learning students.

The teachers in the preliminary survey generally judged the work at the centres to be well organised, although Elementary trainees were more positive than those in Science/Maths courses (75 per cent of Elementary trainees thought it well organised compared with 63 per cent of the Science/Maths trainees). The reasons for this discrepancy will be discussed below.

One problem in the organisation of centres mentioned by trainees during the course of the evaluation interviews concerned the opening hours.

The majority of trainees take between one and two hours to travel to their centre. In addition, most of those we interviewed told us that it was not possible to be released from school on Friday mornings. Since most centres close around 3 o'clock, and some do not issue modules after 2 o'clock, it is possible that a trainee can go several weeks without being able to visit the centre while it is open.

A strong case exists for amending the hours during which tutors are available for consultation, when assignments may be handed in, and modules collected.

The Face-to-Face Sessions

Three different kinds of face-to-face sessions are organised by the centres:

a) one-day study circles. These generally take place once per month, although it can be more frequent. The official requirement is six per year. The aim of the study circles is to help students with particular problems.

b) two-day practical sessions. These take place during weekends, with a total of eight per course. The sessions consist of science practicals, environmental studies, physical education and aesthetics (dancing, music and art). The aesthetics component is intended as teacher training in the elementary course, and for personality development among the Science/Maths trainees.

c) five-day contact sessions. These sessions are held during school vacations, a total of eight/course. They have a broader focus, and are intended for total teacher personality development.

The Study Support Services unit develops guidelines for the two- and five-day sessions, based on feedback from the centres. Evaluation sheets are sent out with each set of guidelines. No guidelines are distributed for the study circles, as these are intended to focus on the particular problems of individual students.

The teachers in the preliminary survey were asked how useful they found the contact sessions. The results are presented in Table 3.2.

Table 3.2 Trainee Ratings of the Contact Sessions (%)

Course	Very Useful	Somewhat Useful	Not Useful	Total (%)
Elementary	86	14	0	100
Science/Maths	70	27	3	100

That the contact sessions are much appreciated by the trainees is apparent from the table. In fact, there is a fairly widespread feeling among trainees that there are too few contact sessions in the distance programme. Increasing the number of contact sessions was included by more than 20 per cent of the trainees in their 'proposals for improving the course'.

There were also persistent complaints about the lack of residential facilities for the contact sessions. The sessions were originally residential, but this was discontinued because of all the financial and logistical arrangements this involved. At one study centre we were told that, when residential facilities were available, only about 25 per cent of the trainees took advantage of them. Nevertheless, there is clearly a minority of trainees who feel they would benefit from residential courses. Around 15 per cent of the trainees suggested this as one of the ways in which the distance courses could be improved. Given the constraints under which most centres operate, however, it is unlikely that this is a feasible proposition.

Another common complaint about the contact sessions was that they were not well organised. Some sessions attempted to cover too much, while little was done in others. Many trainees suggested that the sessions could be improved by issuing a time-table for each session beforehand.

As Table 3.2 reveals, the contact sessions were judged less useful by the Science/Maths than the Elementary trainees. From the comments of trainees and tutors, as well as our own observations, it is clear that this is due to weaknesses in the science practical programme. Some of the trainees complained that the science practicals were irregular and insufficient, that there was a lack of time, a lack of lab facilities, a lack of equipment, and that not all trainees got the chance to attempt all experiments. Only half of the teachers selected for the in-depth study felt that the training they received in laboratory experiments and practical work was adequate.

Practical facilities for the Science/Maths trainees are 'begged' from the schools housing the centre and, since such resources are very small in the schools anyway, the Study Centre is often cast into the role of an unwelcome, poor relative. The consequence of the lack of equipment and consumable materials is that trainees frequently do not carry out all the experiments in the modules. Resources are not available in their own schools for that purpose, and sometimes they are not available in the centres either.

One way of overcoming this problem would be for centres to carry out certain of the key experiments during practical sessions using the host school resources, together with locally-purchased consumable materials. Senior tutors are empowered by the IDE to make modest purchases up to Rs 200 without prior permission, and can spend a maximum of Rs 1000 on a weekend course. However, the tutor would need to find the cash for this expenditure himself, and make a claim to IDE for reimbursement. This can be a major dis-incentive to the mounting of practical work, if the course comes near the end of a month when the tutor's personal budget is probably stretched rather thinly.

While this is an improvement on not performing the experiments at

all, it would destroy the carefully constructed concept development built into the modules, and thereby seriously affect teaching efficiency.

A better alternative would be to issue all Science/Maths trainees with simple science kits containing the basic equipment and supplies necessary for carrying out the required experiments.

Staffing

Each centre is under the control of a Senior Tutor who is appointed by the Director, IDE, and who is responsible for organising and maintaining the various support services described above. The Senior Tutor is assisted by a team of tutors, some full-time and some part-time. The part-time tutors work on either 'two-day release' (released from work in local colleges or schools for two days per week) or as weekend tutors.

The smallest number of full-time tutors in the Sinhala-medium centres is three (five centres), while the largest have nine (Kandy and Ratnapura). Distributed between these 23 centres there also approximately two hundred part-time tutors with different specialities, mostly employed for the weekend practical sessions.

The seven Tamil-medium centres and the four dual-medium centres are staffed by a total of eight full-time Tutors (Colombo, a dual-medium centre, has no full-time Tamil tutor), and approximately 16 part-time tutors. In all, there are 111 full-time tutors catering to 7146 trainees, giving a full-time tutor: trainee ratio of 1:64. This does not take into account the part-time tutors, of whom there are approximately 200.

Table 3.3 presents the ratings for different aspects of the work of tutors, given by teachers in the questionnaire and in-depth studies. Tutors were considered to be helpful, easily available for consultation, to have an adequate level of knowledge, and to

Table 3.3 Teacher Ratings of Tutors (weighted means expressed on a scale of 1-3)

Tutor Behaviour	Course	
	Elementary	Science/Maths
Amount of Help	2.8	2.5
Availability for Consultation	2.8	2.6
No. of Teachers in Sample	269	104
Level of Knowledge	2.95	2.7
Preparation for Lectures	2.8	2.7
Availability for Consultation	2.9	2.9
Feedback on Progress	2.8	2.9
No. of Teachers in Sample	60	45

3=good, 1=poor

give sufficient feedback on the trainees' progress. Again, however, the science/maths trainees show themselves to be less satisfied with the assistance they receive than the elementary trainees.

Despite these high ratings, however, there were rather many negative comments pertaining to the tutors in the open-ended questions. Some of the tutors were not considered experienced enough to guide teachers, were not sure of some of the modules, did not pay enough attention to weak students, and sometimes behaved in an authoritarian way towards trainees.

Another source of dissatisfaction was the staffing situation. This resulted in large groups in the contact sessions, and a lack of practical training. As the latter is a serious shortcoming in the present programme, it will be discussed separately.

Practical Training in Classroom Teaching

In addition to the written material and contact sessions, the distance programme also makes some provision for supervised teaching practice. The intention is that tutors visit each trainee in their school once per term, to observe the trainee teaching, give advice, and discuss the progress of the trainee with senior staff members.

The preliminary survey, and interviews with teachers, show that this occurs much less frequently in practice. Some trainees reported only one visit from a tutor in the three years before the final examination lesson, and the mean appears to be around one visit per year. Given that there are on average 64 trainees for every full-time tutor, this is not surprising.

It also appears that there is little 'peer-group' teaching or practice teaching during the contact sessions. When asked whether they had had adequate opportunity to watch model lessons during the course, 25 per cent of the teachers in the in-depth study answered 'no'.

Since teacher training involves a large measure of attitude changing, and this is most effectively achieved 'on the job' in a counselling situation, practical teacher training is a very important part of the distance teaching system. The trainees themselves were also acutely aware of this lack. In the preliminary survey, for example, the most common suggestion for improving the course, second only to the call for modules to be issued on time, was for more visits from tutors.

Hence, every effort should be made to improve the frequency of school visits by increasing the numbers of full-time tutors, or employing part-time tutors to assist in this task.

It is also possible to make use of trained teachers and principals in the schools, as is discussed in Section 3.3.

Physical Facilities

The evaluation team visited a total of four centres distributed around the southern region, two of which were dual-medium.

Centres are mostly attached to local schools, and share classrooms and other teaching facilities and materials with the host school. At least three centres are split between two locations some kilometres apart, the one part providing the small resource centre where modules can be collected and exchanged, the other providing the classroom space required for group sessions and tutorials. Having to go to two separate places for module collection and the contact sessions can be extremely demotivating and disorganising for the hard-pressed teacher , who perhaps has only a couple of hours to collect a module at the end of a week.

The centres we visited mostly had one small room which housed the local records, module stocks, and reference materials for trainee use. Storage facilities are very poor with little or no cupboard space or shelving. Consequently reference materials, where they exist, are usually in poor condition and neither visible nor accessible.

Centres are extremely important to the success of the trainees and the effectiveness of the distance program. Accordingly it is essential that centres be established as single coherent units with adequate resources in the shape of furniture, duplicating facilities, equipment and consumable materials (paper, chalk, materials for making visual aids, chemicalc etc.).

The answer may be to regard the centre as a 'school' for administrative purposes and allow it to apply to the Ministry of Educational Services for furniture, science equipment, books etc. in its own right.

Apart from regarding centres as schools to obtain supplies, there are other tangible ways in which ties between the centres and schools could be strengthened. These are discussed in the next section.

3.3 THE LINKAGE BETWEEN THE COURSES AND THE SCHOOL

One weakness in the distance programme which emerged from both the preliminary survey and the evaluation study is the poor linkage between the programme and schools. The strengthening of this link could benefit the programme by making principals more cooperative and supportive.

The preliminary survey found that many of the principals had only a superficial knowledge of the distance programme. Furthermore, a substantial number had some reservations about distance education, preferring residential training instead. The reasons given for this were that residential courses are more successful, and are better able to develop the social and ethical aspects of teaching. (As this point was also made by some of the trainees,

it does seem that there should be more concentration upon these areas in the contact sessions).

Other disadvantages of the distance programme mentioned by the principals were that it causes inconvenience to the school because teachers must be given leave, that it interferes with normal class work, that it distracts the trainees from their teaching, and that it lowers standards in the school.

There was also some indication that the principals felt they had too little involvement in the programme. One principal commented that they should be better informed about the course, while another pointed out that, at present, no assistance is obtained from the principal. Several suggested that principals should receive progress reports on the trainees from time to time, and that someone in the school should observe the trainees teaching.

It is indeed possible that principals would have more positive attitudes towards the distance programme if they were kept better informed about the courses and felt more closely involved. This could also benefit the programme in other ways, by encouraging greater cooperation in giving leave, in facilitating recruitment, and in helping overcome the problems surrounding teaching supervision.

3.3.1 Awareness-Raising Among the School Administration

To ensure the effectiveness of the distance programme, it is essential that principals and heads of sections are aware of the goals, content and methods of the distance courses.

There are several different approaches which could be used to increase the knowledge and awareness of school adminstrators in relation to the distance courses. One method would be to hold a series of workshops for principals and heads of section. This could perhaps be done in collaboration with other training programmes for school administrators, such as those run by the Staff College for Educational Administration at NIE.

A alternative method would be to utilise the distance mode itself, and develop a short module for administrators in the distance education format, requiring a brief response/assignment.

This kind of awareness-raising among principals would not only increase support among schools for the programme, but would encourage them to cooperate in fulfilling IDE requests, such as the granting of Friday release. As well, the motivation of trainees would be further enhanced.

3.3.2 Liaison with the School Administration

A related issue concerns cooperation and liaison between the Study Centres and the school administration. As Section 3.2 showed, one of the main shortcomings of the distance courses is the lack of supervision of classroom teaching. This is due to the shortage of full-time tutors in the centres.

As it may be difficult to increase the number of tutors sufficiently to cope with the supervision required, an alternative approach would be to involve senior teachers and principals in this task. However, a careful selection of the staff would be necessary, restricted if possible to those of a progressive nature who would be unlikely to erode the attempts being made through the modules to improve classroom methodology. A good idea would be to use graduates from previous courses.

The involvement of principals and section heads in supervising classroom teaching would also enhance the motivation of the trainees, giving them proof of the active support of the school for the distance programme.

3.3.3 Publicity and Course Recruitment

One reason why recruitment to the distance courses has decreased over recent years may be that the courses are not sufficiently well-advertised. The present system of advertising for applicants through the Government Gazette, as well as newspapers and radio, may not be reaching all teachers, especially those in remote areas.

To ensure that information about the distance courses does in fact reach every school, it would be a good idea for IDE to send out information to every school when new course applications are due. This information should be sent directly to the schools (e.g. with the pay sheets), rather than relying on the Regional Education Officers for further distribution.

3.3.4 Coordination of Course and School Time-tables

In order to run successfully, it is important that the distance education courses are sensitive to the needs of the schools in which the trainees teach. This means that the convenience of schools must be taken into consideration when planning the timing of the contact sessions.

The five-day contact sessions are generally planned to take place during school vacations, but this has occasionally been problematic for Muslim schools. The April school vacation does not coincide with that for government schools because of Ramadam. In one school with a large number of distance trainees, for example, the principal was forced to send pupils home for the week during which the five-day session for the distance course took place. Although this was an isolated case, it is important to bear in mind the general principle that the needs of schools should be taken into account when planning the course calendar.

Another area of potential conflict concerns the Friday release for distance trainees. As pointed out earlier, trainees are expected to visit the Study Centres on Fridays to collect new modules, turn in assignments and consult with tutors. However, many of the trainees interviewed by the evaluation team found it difficult to be released from their schools on Fridays, even once per month. Many teachers were forced to visit the centres after school finished on Friday, leaving them very little time before

most centres closed.

One of the major reasons for the reluctance of schools to release teachers to attend the centres on Fridays is the organisational problems their absence creates in the school. These problems are further exacerbated by the demands of other in-service courses, which also require the day-release of teachers.

In addition to the courses run by IDE, one-day in-service courses are also run by the Curriculum Development Centre (CDC) in primary education and all the major teaching subjects once per month, by the Examinations Department for certain grades twice per month and by the PRINSEP English course run by CDC. The need to release teachers for so many courses places a heavy load upon school time-tables, and can lead to severe disruption when courses coincide. To keep this disruption to a minimum, there should be closer coordination between these activities. If a maximim number of 'teacher day-releases' per school per term could be determined, this would greatly assist principals in balancing requests from various quarters and improve the day-release situation for IDE trainees. However, this is a long-term, complex task, and it is appreciated that it is outside the jurisdiction of the IDE.

In the meantime, however, the situation of teachers having problems getting Friday release could be eased in two ways. One easy measure would be to keep centres open longer on Fridays, as suggested in Section 3.2, so that teachers would have sufficient time to reach the centre and talk to tutors even if they did not leave for the centre until early afternoon. The second measure would involve sensitising principals to the distance programme, as suggested above.

The four areas mentioned in this section are only some of the possible avenues for closer cooperation between the Study Centres, the IDE and the schools. Such cooperation is vital for the effectiveness of the distance programme at the school and classroom level, and it is an area where IDE activities could be strengthened.

CHAPTER 4 THE OPERATION OF THE PROGRAMME

While the previous chapter focussed on the structure and organisation of the distance education programme, this chapter will examine the operation of the programme, concentrating upon the internal efficiency, the course materials, the methods of course assessment, and the Tamil programme.

4.1 ENROLMENT AND INTERNAL EFFICIENCY

4.1.1 Enrolment in the Elementary and Science/Maths Courses

To date, a total of 14,387 trainees have enrolled in distance education courses; 13,765 in the Sinhala medium and 622 in the Tamil medium. As previously indicated, there have been four intakes into the Elementary and Science/Maths courses in the Sinhala medium, and one into Tamil medium courses.

Table 4.1 Enrolment in the Distance Education Courses, 1984-1988

Year of Intake	Sinhala		Tamil	
	Elem	Sci/Maths	Elem	Sci/Maths
1984	3007	1591	-	-
1985	3183	1112	-	-
1986/87	1907	944	436	186
1988	1028	993	?	?
Total	9125	4640	436	186

Source: NIE, IDE

The total enrolment for the different courses is shown in Table 4.1. As can be seen, there has been a considerable drop in enrolments since the first two intakes. This should not be seen as necessarily negative, however. The initial high intakes placed a considerable strain on the resources of the study centres and the central unit. With lower intakes, it will be possible to place more emphasis upon the quality of the training, particularly at the school level. As indicated in Section 3.2, the study centres are so understaffed at present that most trainees are visited by a tutor in their schools only once a year, and sometimes even less frequently than that.

The 1988 intake figures have not yet been finalised. Due to

changes in admission regulations, it is likely that a further 225 will be admitted to the Sinhala medium courses. Applications to the Tamil medium courses have been lower than expected, so the deadline for the new courses has been extended until August 1988. It is hoped that around 350 Tamil trainees will eventually be enrolled, although so far only 328 applications have been received.

The preliminary survey conducted for this evaluation found that the majority of the teachers enrolled in the distance courses are in their mid-twenties to mid-forties, and are married with children. Only half of the sample had domestic help during the period of training and more than 20 per cent had to travel for more than two hours to reach the study centres. The fact that these teachers opted to follow a teacher training course while shouldering responsibilities as parents and full-time teachers reveals the demand for opportunites to obtain professional qualifications among untrained teachers.

The academic background of the course clientele has important implications for the level and nature of the course content. The preliminary survy found that almost all of the trainees had been in service more than three years prior to joining the programme, and had O-level qualifications. A high 40 per cent of the teachers had A-level or higher qualifications. This finding has particular significance for the further development and revision of the course modules and will be discussed further in the following section.

4.1.2 Examination Pass Rates

Only the 1984 intake has so far completed the entire three-year course, having sat the final exam in April 1987. The final examination of the 1985 batch will take place in August 1988. Among the 2675 students who sat the final examination for the Elementary course in 1987 there was a very high 95 per cent pass rate, with a further 3.7 per cent of students referred for re-examination in certain subjects in 1988 (see Table 4.2).

Pass rates in the Science/Maths course were also extremely high, at 97 per cent, with two per cent of students referred for partial re-examination in 1988. This means that only about one per cent of those students who sat the examination, failed. As these examinations have in the past been set by external examiners and administered by the Department of Examinations, these pass rates are indeed impressive.

4.1.4 Drop-out Rates

There have been fairly low rates of dropout in all of the Sinhala-medium courses, averaging 13 per cent for the 1984 programme. For the 1984 Elementary course, dropout was 10 per cent, and 17 per cent for the Science/Maths course. For courses run using distance methods, these rates are impressive.

The dropout rates for the 1985 course cannot yet be determined finally, as a small number (around 20) of those trainees included

as dropouts here have in fact not dropped out of the course, but have officially deferred their studies for one year. They will be examined in 1989 or 1990 instead (maximum deferment period is two years).

Table 4.2 Pass Rates, Dropout Rates and Internal Efficiency Rates for the Elementary and Science/Maths Courses, Sinhala Medium

	Elem		Sci/Maths	
	1984	1985	1984	1985
Recruited	3007	3183	1591	1112
Sat final exam	2675	2743 (a)	1314	841 (b)
Deferred	18	?	0	?
Passed exam	2553	?	1275	?
Pass rate (%)	95	?	97	?
Referred	98	?	31	?
Failed	24	?	8	?
Dropout	314	324 (c)	277	302 (c)
Dropout Rate (%)	10	10	17	27
Internal Efficiency (%)	85	78(est)	80	71(est)

(a) includes 116 repeaters
(b) includes 31 repeaters
(c) includes some students deferring examination until 1989 (around 20 in total)

Source: NIE,IDE

Disregarding these 20 deferments, it is nevertheless possible to calculate preliminary dropout rates for the two 1985 courses. These preliminary figures indicate a low dropout rate of 10 per cent for the Elementary course, and a high 27 per cent for the Science/Maths course (see Table 4.2). The latter figure is disturbing, as only a negligible proportion of this dropout can be attributed to officially-sanctioned deferment. If the creditable record of the 1984 programme is to be sustained, corrective action must be taken immediately.

The majority of the dropouts questioned in the preliminary survey (57 in total) left during their second or third year of study. Compared with the completers, a higher proportion of the dropouts were married women. A higher proportion also took longer than two hours to travel to the Study Centre.

The reasons given by the dropouts for why they had left the course were many and varied. Eight mentioned difficulties in attending the vacation sessions, while 13 complained about the lack of help received from tutors and problems in getting the modules on time. Other problems mentioned which related specif-

ically to the distance nature of the course were the time and money spent on travelling to the centres, the workload in addition to teaching, the lack of guidance and explanation in some subjects, and the fact that problems cannot be explained immediately.

Table 4.3 Dropout Rates for Elementary and Science/Maths Courses in the Tamil Medium

1987 Course	Elem	Sci/Maths
Recruited	436	186
Sat first year exam	279	133
Dropout	157	53
Dropout Rate (%)	36	28

Source: NIE, IDE

Given the problems which have plagued the Tamil-medium courses, it is not surprising to see, in Table 4.3, that the dropout rates after only one year in both the Elementary and Science/Maths courses in the Tamil medium have been much higher than for the Sinhala medium: 36 per cent for the Elementary course and 28 per cent for the Science/Maths course. And, according to comments from tutors in the study centres, it is likely that the rates are now even higher. These high dropout rates reflect the dissatisfaction and disappointment voiced by many of the Tamil tutors and teachers interviewed in this study. A concerted effort to get the Tamil medium courses going quickly, in combination with intensive follow-up efforts, is essential if the distance courses are to regain credibility among Tamil teachers.

4.1.5 Internal Efficiency

All of these measures can be combined into one single convenient measure, which indicates the internal efficiency of a programme. This measure relates the number of students originally enrolling in a course to the number who successfully complete it i.e. the graduates. As Table 4.2 shows, the internal efficiency of the 1984 Sinhala-medium Elementary course was 85 per cent. For the 1984 Sinhala-medium Science/Maths course it was somewhat lower at 80 per cent.

In other words, 85 per cent of those trainees who originally enrolled in the Elementary course graduated from the course three years later. Similarly, 80 per cent graduated from the Science/Maths course. In fact, these rates may be even slightly higher eventually, as a small number of students have deferred their examinations for one or two years. These rates represent a very creditable achievement for a distance education course.

The internal efficiency rates for the 1985 course cannot yet be

calculated finally, because the end-of-course examination has not yet taken place. However, we can make some estimates by assuming that the pass rates on the examination will be similar to those for last year (almost 100 per cent). Hence, we can anticipate that the internal efficiency of the 1985 Sinhala-medium Elementary course will be at the maximum about 78 per cent, and that of the 1985 Sinhala-medium Science/Maths course around 71 per cent at the highest. These figures again highlight the need for keeping a careful watch on the progress of trainees in the Science/Maths courses.

4.2 THE COURSE MATERIALS

In the distance learning model followed by the Institute, there are six components: the modules, self-study exercises, assignments, peer-group study sessions, tutorials, and practice teaching. Table 4.4 shows the relative importance placed on these teaching/learning techniques by the trainees.

Table 4.4 Trainee Preferences for the Learning Components of the Distance Education System (weighted means expressed on a scale of 1-6)

Learning Component	Elementary		Science/Maths	
	Women	Men	Women	Men
Modules	4.3	4.1	3.6	4.0
Assignments	3.9	4.1	3.8	4.0
Contact sessions	3.7	3.9	3.6	3.8
Tutorials	2.5	3.0	2.7	3.6
Self-study exercises	4.2	4.0	4.3	3.7
Practice teaching	4.0	3.9	4.2	4.3
Number of Trainees in Sample	195	74	71	33

6=first choice, 1=last choice

Table 4.4 shows that all teaching/learning techniques employed by the Institute are effective. Modules and assignments were rated highly by the elementary trainees but slightly less so by the science/mathematics trainees. Both groups rated self-study exercises and practice teaching highly, and both groups put tutorials (the Friday sessions) at the bottom of their lists of preferences. Trainee dissatisfaction with the guidance from tutors was earlier discussed in Section 3.2.

In this section, we shall examine the most-highly valued component of the distance learning programme: the modules. Those components used for course assessment - the assignments and the self-study exercises- will be discussed in Section 4.3. The

other components of the distance learning system, the contact sessions, the tutorials and the practice teaching, were discussed in the previous chapter.

4.2.1 Description of the Courses

Two courses are currently available through the Institute:

i) Elementary Teacher Education for teachers of primary grades (i.e. Grades 1-5),

ii) Mathematics and Science combined Teacher Education for teachers of secondary grades (i.e. Grades 7-11).

Study plans for each course, giving a timetable for the distribution of modules, have been prepared by the Institute. Modules are issued by regional tutors, to a maximum load of four per month, on presentation of assignments from previously issued modules. This system enables trainees to control their own study pace e.g. the submission of an assignment from a difficult module can be delayed until help is obtained from a tutor. Trainees are required to have completed at least 75 per cent of all modules in a course before being allowed to sit the course examinations.

The Structure of the Courses

The number and type of modules making up the Elementary and Science/Mathematics courses are listed below:

Elementary Course	Modules
Professional Education	21
Health and Physical Education	10
Religion	10
Sinhala/Tamil (mother tongue)	20
Mathematical Concepts	19
Environmental Studies	19
Aesthetic and Creative arts	6
Total	105

Science/Mathematics Course	Modules
Professional Education	21
Health and Physical Education	10
Religion	10
Mathematics	35
Science	37
Sinhala/Tamil (mother tongue)	9
Total	122

4.2.2 The Teaching Materials

Development of Modules

Course modules, each covering a particular concept, have been written for most components of the courses. The exceptions are the Religion components: Christianity (non-Roman Catholic); Saivism and Islam. While these modules are under development, none have yet reached the final manuscript stage. Christianity (Catholic), has been completed and is at present offered as the only alternative to Buddhism.

Modules are developed by a team of trained teachers, usually recruited on a part-time basis, who write the material under the direction of a full-time tutor attached to the Central Unit of the IDE.

The Tamil-medium modules are prepared from the Sinhala via English, by a team which includes at least one Tamil/English and one Sinhala/English speaking member. Sri Lankans fluent in both written Tamil and Sinhala are rare. The officer responsible for the coordination of module preparation has only rudimentary knowledge of Tamil, causing the preparation of modules in this medium to be an extremely protracted process (see further Section 4.4).

Preparation of Final Copy and Printing

Artwork is prepared and layouts designed by staff of the Central Unit, who prepare the final copy for the printers.

Printing contracts are awarded against advertised tenders to local commercial houses.

The IDE has an off-set litho press and the necessary ancilliary equipment for the production of plates. However until very recently, the press was not connected to a supply of electricity and there are no qualified staff to run the system. One member of staff has some expertise in off-set printing and, given a qualified printer to supervise the work, the Institute would be capable of carrying out much of the day-to-day printing requirements, including the printing of modules.

Availability of Course Modules

Table 4.5 sets out the current availability of course modules and the probable position when those in manuscript have been printed.

The availability of modules in the Tamil medium is extremely limited. This appears partly due to the lack of suitable qualified staff, and partly to severe delays in the production processes.

The current printing contract was awarded to Sarvodaya (a non-government agency), on March 1 this year. Twenty Tamil manuscripts were delivered to the printer in April. In the last

week of this evaluation (July 4, 1988) the first printed Tamil module was received from this printer by the IDE.

Table 4.5 Availability of Course Modules, June 1988

Course Components	Total No. of Modules	No. Modules Currently Available				Modules Ready for Printing (Tamil)
		Sinhala		Tamil		
	No.	No.	%	No.	%	No.
COMMON						
Professional	21	21	100	5	24	16
Health & Physical Educ	10	10	100	0	0	10
Religion (Budd/RC)	10	10	100	0	0	0
ELEMENTARY						
Mother tongue	20	20	100	5	25	10
Maths Concepts	19	19	100	5	26	14
Environmental Studies	19	19	100	3	16	13
Aesthetics	6	6	100	0	0	3
TOTAL (Common + Elementary)	105	105	100	18	17	
SECONDARY						
Mathematics	35	35	100	4	11	19
Science	37	37	100	5	14	12
Mother Tongue	9	9	100	0	0	4
TOTAL (Common + Secondary)	122	122	100	14	11	

Source: IDE, NIE

Unless the flow of modules increases substantially over the next 1-2 months, there there is a real danger of the Tamil based courses collapsing. We were told that the first batch, enrolled in 1987/88 have completed all 27 modules currently available.

Trainee Attitudes Towards the Modules

Trainee comments on the modules, received in the preliminary survey, can be divided into two groups:

a) comments on the mechanics of learning through modules,
b) comments on the content of the modules.

These comments are summarised in Table 4.6.

Table 4.6 Teacher Attitudes to Modules (weighted means expressed on a scale of 1-3)

Subject of Comments	Elementary Women	Elementary Men	Science/Maths Women	Science/Maths Men
LEARNING THROUGH MODULES				
Time to Study (3=adequate, 1=inadequate)	2.2	2.3	2.1	2.2
Volume of Course Material (3=too much, 1=not too much)	2.6	2.6	2.6	2.7
Explanations of New Material (3=clear, 1=not clear)	2.6	2.7	2.3	2.2
Instructions on Exercises (3=clear, 1=not clear)	2.8	2.8	2.7	2.6
Translating Knowledge into Practice (3=adequate, 1=inadequate)	2.8	2.9	2.6	2.4
CONTENT OF MODULES				
Difficulty (3=high, 1=low)	2.6	2.7	2.8	2.7
Links with Syllabi (3=clear, 1=not clear)	2.8	2.7	2.6	2.5
Number of trainees in sample	195	74	31	33

Source: Preliminary Survey

a) Learning Through Modules

Table 4.6 indicates that trainees were generally able to find time to study from the modules although, as might be expected, men found it easier than women.

The volume of course material was judged to be too much, a comment which is not surprising when it is remembered that most trainees have a full teaching timetable, and probably a family too.

Explanations of new material were deemed adequate by trainees on the elementary course, but slightly less than adequate by those on the Science/Mathematics course.

Instructions for exercises, and guidance on how to translate theoretical knowledge into classroom practice followed a similar pattern of adequate but less so for the science/mathematics modules.

The latter point deserves to be treated as important: practical work should be a significant component of science teaching and to

a lesser extent, mathematics teaching, and this course has as its aim the improvement of classroom teaching.

About one-quarter of the teachers, commenting in the free response section of the preliminary survey, asked that modules be available 'on time'. This finding helps to confirm the conclusion reached elsewhere in this report that long delays in the production processes are a major impediment to the course effectiveness.

b) Content of the Modules

Table 4.6 also summarises the trainees' observations concerning the content of the modules.

The modules were generally regarded as 'difficult' with mathematics and in particular algebra being singled out for adverse comment by elementary course teachers. It appears from trainee comments that some of these modules assume an unacceptably high level of prior knowledge.

Links with school syllabi were deemed to be clear, although there are some gaps which are commented upon in the following section.

The overall picture is one of positive attitudes to the modules from the trainees, tempered by the inevitable constraints of daily life!

4.2.3 The Academic Standard of the Modules

The evaluation team attempted to assess the academic standard of the modules on the basis of responses in the preliminary survey, interviews with trainees, interviews with teacher educators at the Open University, comparisons of the content of the modules with school syllabi (Grades 1-11) and Teacher Guides (Grades 1-7), as well as our own analyses of the module content. These assessments revealed the need to raise the academic standard of the modules in the Science/Mathematics course. In the Elementary course, there is some lack of correspondence between the modules and the elementary syllabus. This is an area which should be investigated much more closely when the modules are revised.

The Science/Mathematics Course

The preliminary survey indicated areas such as probability, statistics, trigonometry and logarithms as those requiring a deeper treatment. However it was subsequently discovered that the relevant modules were not available to the 1984-87 group.

The open-ended questions addressed to the Science/Mathematics trainees brought out the need to raise the standard of the modules in Science and Mathematics to at least A-level together with an indication that increased subject content was required in certain areas.

An examination of the modules supports the inference made from the preliminary data, that most of the content in the Science and Mathematics modules does not go beyond that of the GCE O-level standard.

In addition to reading through and assessing the general level of science and mathematics module content, a list of all experiments in the science modules was made. Each experiment was assessed in terms of its conceptual content and demand against O- and A-level syllabi, and the results are presented in Table 4.7.

Table 4.7 Distribution of Experiments by Subject and Level

Subject Area	Junior Level	O-level	A-level	Total No.	Total %
Physics	32	52	26	110	52
Chemistry	9	22	18	49	23
Biology	3	27	23	53	25
Total	44	101	67	212	-
%	21	48	31	-	100

While it is possible to argue about the relative level of specific experiments, the preponderance is too large to be anything but towards O-level or below.
The conclusion that the content of the science modules is generally below the target level of A-level was further confirmed in an interview with the Dean of Science, Open University, who had abandoned an intention to negotiate with the NIE to use the material for their pre-entry courses, because of the low academic standard of the modules.

In the sample selected for the preliminary survey, 43 per cent of the teachers had GCE A-level or higher qualifications. Today, government policy is to recruit as teachers only people with A-level qualifications. Furthermore, it is axiomatic that a teacher should know more than the students, and teachers trained to teach to O-level should therefore have studied their subject to at least A-level.

Accordingly, we consider the need to raise the standard of the science and mathematics modules in any revision programme as very important.

The Elementary Course

To assess the standard of the elementary course modules, the content of the modules was compared with school syllabi from Grades 1-7, and with Teacher Guides prepared by the Curriculum Development Centre of the Ministry of Education for Grades 1-7.

These comparisons showed that correspondence between the elementary Teacher Guides and the course modules is not close. Teacher Guides, prepared by the CDC, reflect all recent changes and additions to school syllabus content while the modules, some of which were written in 1983/84, do not.

However, it must remembered that the course modules are designed to teach a subject, and therefore it is not entirely appropriate that there should be close correspondence between the modules and material designed to provide step-by-step guidance for the teacher in the classroom.

Correspondence between syllabus content and modules is weak in the following areas:

i) Sinhala - Year 5. Unit 5 of the syllabus on grammar is not dealt with adequately in the course.

ii) Mathematics - Year 4. Unit 12 on direction and scale, and unit 22 on monetary system are recent additions to syllabus and are not included in the Course modules.

iii) Environmental Studies. There is some repetition in the modules covering this area e.g. the same diagram indicating a spiral developmental path is used in three of the modules to illustrate different concepts.

Clearly, while the evaluation team did isolate these instances where correspondence between the modules and the syllabi was lacking, we did not have the facilities or the time to investigate the problem fully. Our limited findings do indicate, however, that the question of correspondence should be a major consideration during the revision of the Elementary course modules. The question of revision is dealt with further below.

4.2.4 Revision of Course Teaching Materials

One of the roles of the central unit of the IDE is to collate feedback from tutors in the regional centres with regard to errors, omissions, and textual difficulties in the modules. This is done as a part of the duties of those officers involved in recording the incoming student records of progress. Such an informal system can function fairly efficiently when the number of courses and modules are small, but when considering a total of more than two hundred modules, made available in two completely dissimilar languages, the task becomes one requiring a more formal arrangement.

To date, the module revision which has occurred has been largely concerned with the correction of printing errors. Revision sheets have been sent to regional tutors who point out the errors to the teachers, who correct the modules.

Some problems of conflict between the CDC Teacher Guides and the relevant modules have been identified, while the larger task of revising the modules to meet the needs of syllabus changes (e.g. Beginning Science in the primary schools and Integrated Science in the secondary) has been recognised, but not yet begun.

The IDE is understandably preoccupied with the problem of completing the initial set of modules in both languages, but it should be possible to begin a limited revision process by asking the writing teams to produce 'revision sheets' for particular modules which could then be duplicated or printed and distributed to the regional centres for inclusion in modules.

Another issue pertaining to the revision of modules concerns the revision of assignments. This is discussed in Section 4.3.

4.2.5 The Development of Additional Material

In addition to a revision raising the academic content of the science modules, as discussed above, four other areas where additional modules could be introduced were identified from the preliminary survey and discussions with teachers. These are listed below:

Beginning Science

This new course was introduced in 1984, for the top end of the primary school (Grades 4-5). The syllabus for this course departs considerably from the Environmental Studies course which is of a more general nature.

Multigrade Teaching

A significant proportion of the rural schools in Sri Lanka are 'multigrade' schools. As these schools have more grades than teachers, different grades must be combined into one class. The problem is most severe in schools with only one or two teachers (in 1986 there were 490 one-teacher schools and 743 two-teacher schools), but occurs in other schools also. One school we visited, for example, had only four teachers for the five primary grades, so that one teacher taught a combined Grade 4 and 5. Furthermore, even schools which have been assigned sufficient teachers become multigraded schools in practice because teachers are on leave so much.

The teaching strategies which these schools require are different from those employed when only one grade of children is being taught in a class, and a module(s) on this topic in the professional education component of the Elementary course would be a valuable and useful addition.

Some work in developing materials and ideas for teachers in multigrade schools has already been carried out by the Director of Primary Education at NIE in cooperation with UNICEF. However, this material has so far been distributed only to the 20 schools within the UNICEF project. It would thus be a good idea if IDE and the Institute of Primary Education could collaborate to produce some material for the distance education courses. This would facilitate the work of material development for IDE, and would at the same time allow the materials developed by the Director of Primary Education to have a much wider distribution.

Special Education

Sri Lankan schools contain a large number of children suffering from physical and mental handicaps: in 1987, there were 9041 who were visually handicapped; 3334 with hearing handicaps; 2920 with other physical handicaps and 6404 with some form of mental handicap (School Census, 1987). These figures are likely to increase in the future as the current policy is towards the integration of handicapped children into regular classrooms.

Several teachers commented that they would like more help from the modules on the problems involved in teaching very dull pupils. Accordingly, an extension to the psychology component of the professional course, dealing specifically with the teaching of the mentally and physically handicapped, would be a valuable addition to both of the present courses.

Extension Modules

Several teachers interviewed expressed a desire for additional modules in content areas which interested them particularly e.g. electronics. This desire might be satisfied if the content of the science modules is up-graded, but we gained the impression that what was really required was more in the direction of 'personal enrichment'.

Many teachers also commented favourably on the modules dealing with the psychology of children, saying they were of value in improving understanding of their own children as well as their students, and that they would like more on this subject.

At this stage, the preparation of modules to satisfy the interests of teachers beyond the call of the syllabus would be a luxury, but perhaps the need could be met by increasing the range of reference materials available in the Regional Centres.

4.3 METHODS OF COURSE ASSESSMENT

Assessment of the distance learning takes place on three levels: student self-tests, continuous assessment through assignments, and formal supervised tests and examinations.

In addition the Institute assesses the trainee's classroom competency by observation and consultation with the principal and senior teachers.

4.3.1 Self-tests

At appropriate intervals in the modules, there are short tests (learning exercises), designed for trainee self evaluation. The trainees, as indicated in Table 3.8, regarded these as a valuable aspect of the learning materials, generally rating them second only to the modules and assignments as learning experiences.

4.3.2 Continuous Assessment

Organisation of the continuous assessment, or assignment, component is a major part of the IDE's work load, and demands a large proportion of the time a trainee can set aside for study purposes.

Each module ends in an assignment which is submitted to the Regional Centre for grading. Each assignment must be completed before another module can be started. This means that on average, each trainee must submit four assignments per month in order to keep pace with the recommended course study plan.

The mean assignment grade for a subject contributes one-third of the marks awarded for that subject. If an assignment falls below an acceptable level of achievement, the trainee is invited to resubmit it after discussions with the tutor and further work.

Table 4.8 Trainee Attitudes to Assignments

	Elementary		Science/Maths	
	Female	Male	Female	Male
Completing in Available Time (3=difficult, 1=easy)	2.4	2.4	2.4	2.2
Marking Turn-Around Time (3=1-2 weeks, 1=3-4 weeks)	1.8	1.8	1.8	1.5
Tutor Comments (Feedback) (3=v. helpful, 1=no help)	2.8	2.7	2.5	2.6
Number of trainees in sample	195	74	71	33

The preliminary survey invited responses from trainees on completing assignments in the time available, the turn-around time for the marking of assignments, and the usefulness of the comments received from tutors. Table 4.8 shows the weighted means for these responses.

Trainees appear hard pressed to complete assignments and maintain the pace suggested in the study plan.

Turn-around time for the assignments is slow, of the order of three weeks, a point that was often made by the trainees interviewed.

The moderation exercise carried out by the Institute certainly contributes to this delay for the 10 per cent of trainees involved. Perhaps this exercise can be reduced as tutors gain confidence in their marking skills, and occasional monitoring while on visits to Study Centres substituted. The delays are

largest for the science/maths trainees and perhaps attention should be paid to the nature of the assignments and prepared marking guide to improve turn-around time.

Turn-around time could also be reduced by simplifying the assignments as much as possible. Assignments based on multiple-choice questions, for example, are easier and quicker to correct than those requiring essay-type answers.

Tutor comments are rated favourably although, once again, less so by the science/mathematics trainees.

Assignment Records

These are kept by the Study Centres, and are also sent in to the Institute for recording on the trainee record card. Since there are more than one hundred assignments in each course, this constitues a significant clerical load, particularly at the Institute where it substantially reduces the time available for professional activities.

In order to reduce this load we suggest records of individual assignment grades only be kept at the Study Centres. These could then be grouped into meaningful clusters (e.g. 'Development of the Child', 5 modules) by the centres, and only the average grade submitted for IDE recording on the trainee file. Although we realise that such a system would not be easy to design or introduce, it is important that some steps be taken to lessen the inordinate load which this task presently places upon the time and resources of the Institute.

Another possibility would be to reduce the number of assignments. Compared with the programme of the Open University, the assignment load of the distance courses is very heavy.

Revision of Assignments

In order to reduce the risk of copying among trainees, the assignments have been revised twice. Hence, the assignment included in the module has so far been used only for the first intake. Since that time, revised assignments on separate sheets have been distributed to the centres.

This system has caused much inconvenience to both trainees and tutors. As each centre received only one copy of each sheet, the trainees in most centres have been forced to copy out all of the questions themselves. The trainees we interviewed estimated that this exercise alone took up to one hour, not counting the time spent waiting while other trainees were using the sheet. One centre had access to a typewriter and duplicating machine, and so was able to duplicate the sheets there. However, many centres do not have such facilities.

If the practice of using assignments not in the modules is to continue, we strongly recommend that one assignment sheet be included in each module. At the very least, enough assignment sheets should be sent to each centre to supply every trainee.

Having trainees work for one hour at the centres copying down assignment questions (and often not managing to complete the task) is not a rational use of their limited time.

4.3.3 Formal Tests and Examinations

Trainees who complete eighteen months of study after enrolment, and have studied a minimum of 75 per cent of the scheduled number of modules, are eligible to sit Part I of the final examination. Similarly those who complete the next segment of eighteen months and complete a minimum of 75 per cent of the remaining modules are eligible to sit Part II of the final examination.

Papers are set by a panel of examiners drawn from the Institute and other teacher training institutions, and administered by the Department of Examinations. However, NIE will conduct its own examinations in the future.

As far as can be judged from the limited comparisons we made with the examinations of the teacher training colleges, the standard of the examinations are comparable. However it would seem to us preferable to have common papers, or draw on questions from a common question bank, wherever possible, to avoid the dangers of invidious comparisons regarding the standards of the two types of Institutions.

Trainees must sit a whole examination, although it is possible to delay sitting the examination for one or two years if individual circumstances have prevented the trainee from being adequately prepared.

4.3.4 Assessment of Classroom Competency

The main assessment of classroom competency is done by means of one or two 'examination lessons', of which the trainee has prior notice, and which are observed by a panel of at least two tutors, one of whom is from another region. The examination lesson is assessed against a very thorough schedule which includes provision for ratings from the principal, a senior teacher in the subject section, and on the comunity involvement of the trainee, as well as the normal criteria by which teaching is assessed (e.g. preparation, questions, activities, student participation etc.).

4.4 THE TAMIL PROGRAMME

Although the IDE does not operate separate Sinhala and Tamil programmes as such, there is such a marked discrepancy in the availability of Sinhala and Tamil courses that we have decided to consider the situation of the Tamil courses separately.

4.4.1 The Staffing Situation

That the IDE does not have a separate section responsible for the Tamil courses is perhaps one reason why the development of the Tamil courses has been so slow. At present there are three Tamils on the professional staff, out of a total of 30. One seconded teacher and one APO work in the Student Management section, and they are responsible for handling all the administrative work for the entire Tamil programme. The third Tamil, a former school principal, works as a layout artist in Production and Development. Although he has been working at the IDE since its inception, and was the first Tamil to join it, he is still working on secondment from the Ministry. He was recently refused a permanent appointment on the grounds that he does not have sufficient experience in distance education. Furthermore, the CPO coordinating the development of the Tamil modules does not speak fluent Tamil.

This poor situation with regard to the Tamil staff is unlikely to improve in the near future. Although IDE recently advertised 30 vacant positions, it so far appears that few will be filled by Tamils. This occurs because of the stipulation that appointment to a PO requires three years' experience in distance education, and appointment to an APO requires two years. As so few Tamils have been seconded to IDE in the past, there are very few who can meet this requirement. Of the 30 posts advertised last year, 20 have already been offered. So far, only one has been offered to a Tamil.

However, if the Tamil programme is ever to get off the ground and run smoothly and efficiently, more Tamil staff are essential. Most urgent are a language editor, a subject editor and more administrative staff. Even though the Tamil courses will cater to a smaller clientele than those in Sinhala, the work involved in developing and producing course modules, materials and assignments is the same as for the Sinhala courses.

The staffing of Tamils in the study centres is also fairly poor. In Colombo, there are no full-time Tamil tutors at all, so that the layout artist from IDE doubles as Senior Tutor in one of the two Colombo centres. This has occurred largely because of Ministry reluctance to release Tamil teachers from full-time duty, as Tamil teachers are now in short supply in Colombo. All of the other centres have one full-time tutor except for Mannar, Mullaitivu and Vavuniya, which share one between them.

Hence, there are eight full-time Tamil tutors for 11 centres, as well as 16 tutors working on two-day release from their regular school teaching. As there are 622 Tamil students enrolled in these centres, this means that the full-time staff:student ratio is 1:43, while the IDE target is 1:30 (excluding part-time tutors specially employed for the weekend and sessions).

4.4.2 The Development of Course Materials

Although the Sinhala-medium courses have been running since 1984, with the successful completion of four courses (two elementary and two maths/science) not even one course has so far been com-

pleted in the Tamil medium. In fact, neither of the Tamil courses has so far progressed beyond the first year examination. And even this one year has been a truncated version, as Table 4.9 shows.

Table 4.9 Required Number of Modules for First Year and Number of Modules Received by Tamil-Medium Students During First Year

Modules	Required No. Modules	No. Tamil Modules	% Available to Tamils
Elementary Course			
Professional Education	7	5	
Health and PE	4	0	
Religion	4	0	
Mother Tongue	5	5	
Maths Concepts	8	5	
Environmental Studies	7	3	
Aesthetics	3	0	
Total	38	18	47
Maths/Science Course			
Professional Education	7	5*	
Health and PE	4	0	
Religion	4	0	
Maths	10	4	
Science	12	5	
Total	37	14	38

*the same professional modules are used for both courses

While the course plans show that students in the first year of the Elementary course should cover 38 modules, the Tamil trainees have so far received only 18. In the Science/Maths course, they have received only 14 of the required 37.

Hence, the trainees in the Elementary course have covered less than 50 per cent of the required first-year course content, and in the Science/Maths course less than 40 per cent. This means that, since 1986, the Tamil students have in fact been able to cover only 6 months of the distance course.

Why it has taken so long for the Tamil course materials to be produced is unclear. Difficulties in recruiting qualified Tamil staff, delays in awarding a printing tender and uncertainties caused by the establishment of NIE and the appointment of a new director are some of the reasons put forward.

To date, only 27 different modules have been printed in Tamil. However, as the new Director has made a concerted effort to speed up the development of the Tamil modules, a further 100 have now been completed and are awaiting printing. Some of these modules

have been delivered to the printer, and the printer has undertaken to deliver 15 modules by the end of July 1988. The remainder are to be delivered before March 1, 1989.

The question of printing has long been a thorny one. Although IDE received an offset printing press from SIDA some years ago, this press has never been put into operation. Instead, all printing has been put out to tender with commercial companies. The tender for the printing of the Tamil modules has recently been awarded to a Sarvodaya printing company, who have yet to agree to the production schedule of six modules per week submitted by IDE after the awarding of the tender. Even if this schedule is eventually adhered to, the students in the Tamil programme will have been delayed in their studies by at least one year.

4.4.3 Enrolment, Attendance and Dropout

These delays have given rise to high dropout rates in the Tamil courses. As was demonstrated in Section 4.1, the dropout rate by the time of the first year examination (held in April) was 36 per cent in the Elementary course and 28 per cent in the Science/Maths course. And, according to comments from tutors in the study centres, these dropout rates have continued to increase. When students make the journey to the study centres only to be told that there are no modules available for them, they are understandably disappointed. Most students have not received any modules this year. And even during 1987, the distribution of modules was slow and uneven. Two of the Tamil trainees interviewed in Colombo had received their 18 Science/Maths modules during 1987 as follows:

January	2 modules
February	2
July	7
September	3
October	1
November	3

A similar pattern was found among trainees in the Kandy area, where most students had received modules only five times during their first year.

That this has affected motivation and attendance at the face-to-face and contact sessions is also evident. Records at one study centre, for example, revealed the following pattern of attendance at the contact sessions held since the course start. In both courses, attendance dropped significantly as the course progressed, only to pick up again towards the end when preparations began for the examination (see Table 4.10).

One reason for the low attendance at many centres is that many of the Tamil teachers teach in remote schools and have to travel a long way to reach the centre. However, even tutors at the Colombo centres reported that attendance at the contact sessions has recently been low. This is a serious situation, and a lot of follow-up work with individual students is necessary now if large numbers of students are not to be lost permanently.

Table 4.10 Attendance at Contact Sessions in One Study Centre

		Total in group	Attendance at Sessions 1	2	3	4	5
Elementary	Group 1	35	29	28	24	27	32
	Group 2	38	31	31	32	31	33
Science/Maths		25	21	18	12	20	22

The lack of success with the first Tamil course is clearly the reason for the relative lack of interest shown in the second course. In response to the call for applications this year, only 225 and 103 Tamil students applied to the Elementary and Science/Maths courses respectively.

This is due not to a lack of demand for training (as Section 6.1 shows, around 1500 Tamil teachers applied to teachers' training colleges in 1988), but to a lack of confidence in the course. One tutor in a remote area explained that, although there are many untrained teachers in the schools in his region, they had not applied to the course because they are aware that it is not functioning well.

The application date for the Tamil courses has now been extended until August 1988, and efforts are being made to attract more recruits.

However, even this well-intentioned move has merely aggravated the view that the Tamil courses are not a success. Several Tamil teachers in the schools we visited asked the evaluators what was happening with the new course. Although they had applied to the course several months previously, they had not been informed of their acceptance, or that the application date had been extended. At the same time, they were of course aware that their Sinhala colleagues had already begun their new courses. If such delays do occur, it is essential that new applicants and trainees be informed of the reasons, so that feelings of frustration and alienation can be minimised. This again underscores the need for more Tamil staff in the central unit.

The immediate reason for many of these problems has been the very slow production of the Tamil-medium modules. In an effort to overcome this bottleneck, part-time course-writers and translators are currently employed 2-3 weekends per month. As well, two Tamil typewriters were bought in May, and a full-time Tamil typist employed. Previously, all of the Tamil typing had to be done outside the IDE. These long-overdue moves are clearly speeding up the development of the modules, leaving as the main bottleneck the printing stage. If the printing press already available in IDE could only be put into operation, this problem could also be overcome relatively easily.

We regret that we have been forced to make such an unfavourable

evaluation of this aspect of the IDE's work. The IDE has achieved a great deal in the Sinhala-medium courses, and it is a pity that this work should have been marred by the failure to establish viable courses in the Tamil medium.

CHAPTER 5. THE EFFECTIVENESS OF THE PROGRAMME

This chapter aims to evaluate the distance programme in terms of its effectiveness in bringing about the desired educational outcomes.

A consideration of cost effectiveness was not included in the terms of reference. However, as this forms a central component of most evaluations of distance education, it is worth quoting some cost estimates emanating from the Ministry of Education. According to their calculations, distance education is clearly cost effective in relation to other forms of training. The annual unit cost in the distance programme was estimated to be Rs. 1073 in 1986, compared with Rs. 8000 for institutional training. The cost differences would be even greater if the fact that teachers following the distance course are not withdrawn from teaching for two years were also taken into account.

As this example of cost effectiveness illustrates, judgements concerning effectiveness are generally relative, made by comparing the effectiveness of different alternatives. Ideally, judgements concerning the effectiveness of distance education should be made by systematically comparing distance programmes with programmes using other (usually face-to-face) methods. This is the focus of most of the work on cost effectiveness.

However, while cost estimates for different types of programmes are generally available, this is usually not the case for measures of educational effectiveness. It is also rare that base-line information relating to trainees is gathered at the beginning of a programme, allowing eventual 'before-and-after' comparisons.

For the purposes of this evaluation, educational effectiveness is seen both in terms of graduate output and impact upon classroom teaching. As criteria of educational effectiveness we have utilised graduate output, changes in teaching methods, changes in teacher attitudes, increases in teacher knowledge and student achievement.

The absence of comparative information makes it particularly difficult to assess the impact of the programme upon teaching methods and student achievement. Clearly, it was beyond the resources of this evaluation study to carry out a large-scale survey comparing the teaching practices of distance-trained with college-trained teachers, or distance-trained with untrained teachers. Some comparative data was collected on the achievement of pupils taught by the trainees, but this was on a very limited scale.

In an attempt to compensate for this limitation, we asked experienced educators to compare the teaching practices of distance-trained teachers with those of other teachers. These people included teacher trainers, principals and section heads, as well as the members of the evaluation team. Their comments provided a context in which to evaluate the empirical information we collected on teachers trained in the distance programme. The

opinions of parents and the trainees themselves were also included in the measures of programme effectiveness.

Nevertheless, the lack of true comparative data should be borne in mind when interpreting the findings presented below concerning the effectiveness of the distance courses.

5.1 GRADUATE OUTPUT

One of the main aims of the distance education programme was the elimination of the large backlog of untrained non-graduate teachers in the Sri Lankan teaching force within five years. Various estimates of the size of this backlog were given in different project documents at the time of the establishment of the programme, ranging from 15,000 to 45,000. In 1985 it was calculated to be 30,000.

The distance education programme has indeed been successful in helping to clear this backlog. To date, around 7400 teachers have successfully completed their training, while a further 5500 are still undergoing training. Despite these efforts, however, there are still more than 30,000 untrained teachers in the Sri Lankan teaching force.

One reason for this is that the initial estimates of an annual intake of 5000 trainees were over-optimistic. A yearly intake of this magnitude would imply an enrolment of 15,000 at any one time; a number clearly beyond the capacity of the distance programme. Whether this reduction in numbers means that the cost-effectiveness is not as high as originally anticipated has not been investigated.

The second reason is that the Ministry has added to the backlog in recent years by continuing the recruitment of untrained teachers. The size of the current backlog of untrained teachers, and the number eligible for future training in the distance programme, will be discussed in the following chapter.

5.1.1 Explaining High Effectiveness

In Section 4.1 we considered the output of the distance courses as a measure of the internal efficiency of the system. However, the graduate output (measured as the proportion of a cohort who eventually graduate) is also an indicator of educational effectiveness.

As was shown, the distance courses have had an impressive output. The output from the 1984 Elementary cohort was 85 per cent, and 80 per cent from the 1984 Science/Maths cohort.

Although it appears that the output from the 1985 cohorts will be somewhat lower (78 per cent and 71 per cent for the Elementary and Science/Maths courses respectively), these rates indicate a high level of effectiveness for the distance programme.

How has this been achieved? To answer this question, we must account for both the high examination pass rate and the high retention rate. The average retention rate for the 1984 cohort was 83 per cent, and examination pass rates around 95 per cent (see Table 4.2).

McAnany et al. (1983) suggest the following factors as important determinants of relative educational effectiveness: the socialisation of the students in habits of study and self-instruction; the quality of the instructional materials; the amount of study demanded each week and the external reward motivating students.

Student Motivation

Of these, the last has probably had a decisive influence in the Sri Lankan case. The distance course is recognised by the Ministry as equivalent to the institutional training course, which means that graduates are automatically promoted to trained teacher status, with an accompanying salary increase. Without this recognition it is doubtful that the programme would have achieved the same degree of success, considering the heavy demands it places upon teachers in terms of effort, time and money.

The importance of the desire for training as a motivating factor is reflected in the reasons given by trainees in the preliminary survey for why they had joined the course. More than 80 per cent of the trainees mentioned that they did the course in order to become a trained teacher or (less commonly) to get a salary increase.

There is a danger with distance programmes that they are seen as a second-best alternative to institutional training, a perception which tends to lower motivation. In fact, there is some evidence that this attitude exists in Sri Lanka. In their proposals for course improvement, several teachers stated that 'the attitude that distance courses are inferior should be dispelled'. Also, at least 35 per cent of those trainees who did the course because they wanted to become trained, mentioned that they had put institutional training as their first choice.

On the other hand, many trainees saw specific advantages with the distance programme. Almost half of them, for example, said they had enrolled in the distance course because they could follow it while being at home, and because it did not interfere with daily life. This point has particular relevance for women, and is discussed further in Section 5.6.

A further reason for joining the course mentioned by around 35 per cent of the trainees was that they could study and teach at the same time. One reason this was appreciated was that it allowed the trainees to immediately translate into practice what was learnt from the modules.

All of these comments suggest a high level of motivation among the trainees. This impression was also borne out by the observations of the evaluation team. All of the trainees interviewed were enthusiastic about the programme, and eager to

share their views on it. Although one essential component of these high motivation levels is that the distance courses do result in promotion, most of those interviewed also appeared to have a genuine interest in improving their teaching practices.

Structure and Organisation of the Programme

Also important in determining effectiveness, although not included by McAnany et al. (op. cit.) in their list, is the structure and organisation of the programme. The regional centres through which the distance programme is run provide the trainees with opportunities for contact with tutors and other trainees, and it appears from the preliminary survey and our interviews that this contact is an important motivating factor. Almost 20 per cent of the trainees also included an increase in the number of face-to-face sessions as one of their suggestions for improving the courses. Several others suggested that the tutor-trainee relationship be further strengthened.

This close contact between the tutors and the trainees also makes it easier for tutors to follow the progress of individual trainees. This has probably contributed to the high retention rates, as tutors are able to identify potential dropouts and take preventive action. In one Study Centre, for example, we found a staff member from the Study Support Services unit of IDE, who had come out from Colombo for the day. The object of her visit was to organise a special contact session for inactive trainees, in order to identify their problems and try to help them.

The Staff

A related issue which one would expect to have an influence upon effectiveness is the quality and motivation of the programme staff. However, the responses of the trainees were rather contradictory here. Although they clearly appreciated the contact sessions and the contact with tutors, complaints about the tutors were not uncommon. Some of these were not the fault of the tutors themselves, but were due to understaffing. But others concerned the quality of the help given by the tutors (particularly in Science/Maths), and the lack of organisation in the contact sessions. Several teachers also mentioned that tutors were constantly changing.

Nevertheless, all of the tutors we interviewed seemed keen and involved in their work. Thus, if more effort could be made to upgrade the quality of the tutors, it is likely that the distance courses would be even more effective.

The Course Materials

Another factor contributing to the effectiveness of the distance courses is the course materials. The modules were rated highly by the trainees in the preliminary survey and were clearly popular among those trainees interviewed by the evaluation team. Nevertheless, the modules have some flaws and are in need of

revision, as Section 4.2 revealed.

The Course Workload

A final factor which should be mentioned concerns the demands in terms of study time. A high course workload can result in a high dropout rate. Although the dropout in this case was not particularly high, there are some indications that trainees are having difficulty coping with the workload. This is evidenced by the fact that the maximum course length has had to be extended from three to five years, and the stipulation that trainees can sit the final examination after completing only 75 per cent of the required course material. As well, trainees complained in the preliminary survey about the amount of course material, and the difficulty of completing assignments in the available time (see Sections 4.2 and 4.3).

It is not surprising that trainees find it difficult to complete all the work in the time available. In fact, it is a credit to both the trainees and the distance programme that they cope as well as they do.

The distance courses aim to be equivalent to the courses given in teachers' training colleges. These courses are three-year, full-time courses, while the distance courses run for three years part-time. The distance trainees also work full-time and receive no reduction in teaching load because of their studies. Many are not even released on Fridays, when they are supposed to hand in their assignments at the Study Centres. On top of this, the majority of the participants are married women of child-bearing age, responsible for looking after a home, husband, children and possibly even other relatives.

Programmes such as the distance programme are subject to many conflicting pressures. On one side, there are political pressures to achieve results quickly, economic pressures to keep costs as low as possible, and the desire of trainees to complete their training in as short a time as possible. On the other side is the need to deliver a course of high quality, not only in order to bring about effective changes in teaching practices, but also to maintain course credibility. Achieving a balance between all of these pressures must the aim of the management.

The question of the course workload illustrates this dilemma. So far, the IDE has shown a flexible attitude towards the problems of the trainees by extending the course length and bringing in the '75 per cent' rule. When the modules are revised, however, some consideration should be given to this issue. If large numbers of trainees are not completing all of the modules, then either the workload should be cut down somewhat, or the minumum course length increased.

5.2 CHANGES IN TEACHING METHODS

While the distance programme has clearly been effective in delivering training to a large number of teachers, this does not necessarily mean that the training itself has been effective. Whether the training has been effective or not is determined by its impact upon teaching methods. Accordingly, we attempted to assess whether the distance course has brought about any changes in the teaching practices of those who have passed through it.

The main technique used in the evaluation of teaching methods was the observation of classroom teaching conducted during the preliminary survey. The observations were carried out by 17 lecturers from the faculties of education of different universities, as well as Master Teachers. In all, 114 distance-trained teachers (67 Elementary and 47 Science/Maths) were observed for two lessons each. Almost all of the teachers observed were women. As well, the principals of the teachers' schools were also interviewed.

The impact of the distance course upon teaching methods will be examined along different dimensions of teaching methodology: lesson preparation; teaching methods used (lesson profiles); student behaviour and motivation; and the evaluation of student achievement.

5.2.1 Lesson Preparation

In terms of preparing for their lessons, the teachers were found to be less than satisfactory in preparing notes for the lesson beforehand, in choosing appropriate teaching aids, and in having clear lesson objectives. However, they were slightly more successful in balancing the content with the time available and organising the material in an orderly way. Even here, however, ratings were not particularly high.

5.2.2 Lesson Profiles

Elementary

The method most commonly used by the teachers was presentation of facts. The second-most common method was 'question and answer'. The use of practical work and group work was rarely observed. However, most teachers took the lesson standing and moved among the pupils quite often. Their speech was clear and simple, the facts were correct in most instances, and there was relatively good use of the blackboard. Among all teachers, however, there was only limited use of teaching aids.

Science and Mathematics

Science, and to a lesser extent mathematics, lend themselves to

an activity based teaching methodology. In several important policy statements from the 1979 White paper onward, the Ministry of Education has expressed its intention of training teachers who will adopt such an approach.

Our interest was in estimating how far this aim was carried out in practice, in the sample of trainees observed.

Table 5.1 compares the observations made of 46 lessons. Weighted means are used to express the time devoted in each lesson to each of the four catagories of teaching methodology.

The vertical columns thus indicate approximate lesson profiles.

The profiles observed suggest that the trainees lean heavily on the 'chalk and talk' methodologies of blackboard presentation of facts, and teacher questions. There appears to be a slightly greater tendency to adopt activity based methods in mathematics by the male trainees, while female trainees appear significantly more adventurous than their male counterparts in using demonstrations and to a lesser extent, pupil practical work, in both science and mathematics classes. The overall picture however is one in which the traditional methodologies predominate.

Table 5.1 Lesson Profiles, Science and Mathematics

Method Observed	Science		Mathematics	
	Female	Male	Female	Male
Presentation of Facts	2.1	2.3	1.9	2.1
Question and Answer	1.9	2.5	2.0	1.6
Practical Work (demo)	1.7	1.0	1.7	1.5
Group Work (pupil prac)	1.4	1.3	1.3	1.5
No. lessons observed	48	8	28	8

3=competent use of method
1=incompetent or no use of method

According to the classroom observers, around 40 per cent of the practical work observed was not well-organised, and the experiments not presented successfully. In 40-50 per cent of the classes observed, there was also little or no individual attention and guidance given to the pupils.

5.2.3 Student Behaviour and Motivation

The use of didactic pedagogy was reflected in student behaviour and motivation. Teachers' attempts to motivate the students were judged by the observers as weak in 40-50 per cent of cases. Teachers generally attempted to motivate pupils by asking them questions; there was considerably less opportunity given for the pupils to ask questions of the teacher. Nevertheless, the level

of pupil participation and interest was judged as 'average' or 'good' in most classes.

5.2.4 Evaluation of Pupil Achievement

The reinforcement and evaluation of pupil achievement was a generally weak area. More than half of the teachers failed to summarise the lesson at the end of the class. The most common method used by the teachers to assess achievement was the use of verbal questions, although even this was judged by the observers as 'weak' in almost 30 per cent of cases. In around 25 per cent of the classes observed, the indications that the pupils had understood the lesson were also weak.

5.2.5 Teacher Attitudes

Despite these weaknesses, the classroom observers had a generally good impression of the attitudes of the distance-trained teachers, saying that they had found them keen and enthusiastic.

The principals also mentioned that the distance-trained teachers had more favourable attitudes towards their work than untrained teachers. They were more interested, more confident, open to accepting advice, liked to try out new ideas, and had moved away from traditional beliefs.

5.2.5 Evaluating Changes in Teaching Methods

Any changes in teaching methods resulting from the distance teaching programme must be viewed in the light of the teaching methods used by untrained teacher, as well as the general conditions and expectations of the schooling system as a whole. It would be unrealistic, for example, to expect teachers to suddenly adopt group teaching techniques or adapt their teaching to individual pupil needs when class sizes commonly exceed 40. Similarly, to persuade teachers to adopt new methods when most qualified teachers and principals still follow more traditional methods is also an uphill task.

Within this context, the general feeling of the evaluators is that the distance teaching programme has had some impact upon teaching methods. Although the results of the classroom observations indicate that most of the teachers still taught using traditional 'chalk and talk' methods, small improvements were evident.

At the Elementary level, this was particularly true of the use of creative activities and teaching aids. Many of the teachers interviewed by the evaluation team commented that these aspects of the course had been particularly useful to them, and we saw several instances where teachers had put these ideas into practice. The Elementary course emphasises the use of waste materials in creative activities. In one poor rural school, the pupils of the distance-trained teacher had made many imaginative items from discarded boxes and containers, for example.

The teaching aids developed by the teachers during the distance course are particularly impressive, and appear to be used by some teachers. Again, however, the material conditions of the school system must be taken into account. The practice in schools is that the children themselves supply all paper and art supplies, if at all. No paper is supplied by the Ministry. Hence, any teaching aids must be made from this limited stock. Given this situation of scarcity, it is not surprising that few teaching aids are seen in the classroom.

Another area which several of the elementary teachers mentioned as having been a particularly useful aspect of the course was the Environmental Studies component. The approach to the subject and the types of activities suggested were especially appreciated.

A final area where the distance course can be of benefit is in multigrade teaching.

Although the distance course does not deal specifically with the problems related to multigrade teaching, one teacher interviewed by the evaluation team in a multigrade school specifically mentioned that the course had helped her in this respect. By adapting the knowledge gained concerning group teaching methods, this teacher felt she had been able to manage her multigrade class more effectively. She no longer grouped the class according to class level, but according to achievement in particular subjects. This example again highlights the need for increased course content on multigrade teaching, previously mentioned in Section 4.2.

The principals interviewed as part of the preliminary survey generally displayed a positive attitude towards the impact of the distance programme. According to the principals, almost 60 per cent of the teachers had benefited from the course by improving their teaching skills.

The distance-trained teachers were considered to be generally better than untrained teachers. Compared with untrained teachers, the principals felt the distance-trained teachers had better teaching methods, had better discipline in the class and worked with better understanding.

The major weaknesses in their teaching methods were reported to be a lack of individual attention, especially to weak students, only a limited use of teaching aids, poor lesson planning and inadequate use of reinforcers in enforcing and strengthening learning.

5.3 INCREASES IN TEACHER KNOWLEDGE

In addition to bringing about changes in teaching methods, the distance course also aims to increase the teachers' knowledge of specific subject areas, as well as improving their understanding of the child.

That the course has helped to improve the teachers' knowledge of the subjects they teach is illustrated by the results of the preliminary survey. Around 80 per cent of Elementary trainees said the course had improved their knowledge considerably. A smaller percentage (55 per cent) of the Science/Maths trainees felt that their knowledge had improved considerably, indicating that there are weaknesses in the course content in this respect, and reinforcing the conclusion of Section 4.2.3 that the level of the course content needs raising.

One question in the preliminary survey asked the teachers to list three main benefits derived from the course in order of preference. Around 50 per cent of the Elementary trainees and 35 per cent of the Science/Maths trainees mentioned improvement in knowledge as the primary benefit.

Another area where the course appears to have been successful is in helping teachers to understand the child. In response to the question concerning the main benefits of the course, about 50 per cent of the Elementary trainees and 40 per cent of Science/Maths trainees cited understanding the child and an improved ability to deal with the problems related to children.

This trend was also apparent on the school visits made by the evaluators. Several of the teachers, when questioned about the course, immediately said that one of its most useful aspects was the help it gave in understanding children. One teacher even said that the course had been useful because it had helped her to understand her own small child. Others mentioned that their improved understanding of children had had a direct impact on their teaching methods by helping them to group children more effectively. In the preliminary survey, almost all of the teachers stated that their ability to deal with the problems of children had improved as a result of the course.

These points were confirmed by the principals interviewed. After improvements in teaching skills, the second major benefit to teachers they mentioned was an improvement in the ability to understand children, while the third was an increase in knowledge.

5.4 STUDENT ACHIEVEMENT

One of the expected long-term outcomes of any teacher training course is improved student achievement. However, to reliably assess whether such improvement has occurred as a result of the distance teacher training course would be a complex task, requiring a large-scale survey comparing the teaching outcomes of untrained, distance-trained and college-trained teachers and taking into account the multitudinous variables affecting student achievement. A study of this magnitude was not possible within the present evaluation.

However, we have attempted to shed some light on the issue by collecting test marks for the students of some of the distance teachers in the preliminary study, as well as information

concerning changes in student achievement from principals and parents.

The principals interviewed were generally satisfied with the achievement of the students taught by the distance-trained teachers. Furthermore, about half of the principals reported that there had been some outstanding results among the students of these teachers.

Of the 90 parents interviewed, 72 said that they had seen an improvement in the achievement of their children.

A more objective measure of student achievement was the test marks collected for 29 of the teachers included in the in-depth study. While the most desirable strategy would have been to compare these marks with those from similar classes taught by untrained teachers, this situation was not available in most schools. Either there were no parallel classes or there were no untrained teachers. Hence, the sets of marks collected fell into the following four categories:

1. Parallel classes taught by college-trained (TTC) and distance-trained (DE) teachers.
2. Classes taught by TTC- and DE-trained teachers in two consecutive years.
3. Classes at the same grade-level taught by DE-trained teachers before and after training (1984 and 1987).
4. Classes taught by DE teachers while undergoing training in two consecutive years.

The results of these comparisons are presented in Tables 5.2 and 5.3. Pass rates have been calculated on the basis of the standard 40 per cent pass mark. Subjects tested were mathematics, science and Sinhala, at all levels of the school system. The tests used were so-called 'cluster tests' (achievement tests used throughout a school cluster) so there is some element of standardisation. Most of the schools selected were average or below-average schools in rural areas.

Table 5.2 reports the comparisons of teachers trained in colleges and the distance medium. The first set of data compares 11 TTC- and DE-trained teachers teaching classes in the same schools at the same grade levels (parallel classes). As can be seen, there was little difference in the average pass rates: around 65 per cent for both types of teacher. The second set of data in Table 5.2 compares six TTC- with six DE-trained teachers who taught the same classes in two consecutive years (1986 and 1987). In this case, the students achieved considerably better when taught by the DE teacher. The average pass rate for the classes when taught by the TTC teachers was 65 per cent, compared with 94 per cent in the following year, when they were taught by the distance-trained teachers.

Table 5.3 reports 'before and after' comparisons for teachers who had undergone, or were currently undergoing, distance training. The first set of figures reports test results for three pairs of classes at the same grade level (Year 3 Sinhala, Year 10 Sinhala and Year 10 Maths). DE teachers taught at these grade levels before and after training. Before training (in 1984), the average pass rate in the classes was around 60 per cent, while after training (in 1987) it had increased to 70 per

Table 5.2 Average Pass Rate of Students in Classes Taught by College-Trained (TTC) and Distance-Trained (DE) Teachers

Type of Comparison	No. classes compared	College-trained		Distance-trained	
		No. students	Pass rate (%)	No. students	Pass rate (%)
Comparison across paralled classes (same grade level, TTC and DE teacher)	22	347	67	375	66
Longitudinal comparison of classes over two years (TTC teacher 1986, DE teacher 1987)	12	144	65	145	94

Source: Data collected from schools included in preliminary survey

cent. The second set of data compares changes in achievement in 9 classes in two consecutive years, while the teachers were still undergoing distance training. Test scores were collected for students in Year 6 Science, for example, as well as for the following year when they were in Year 7. In this case, however, the average pass rate decreased slightly, from 61 to 57 per cent. Given the small sample size, though, this difference is insignificant.

Table 5.3 Average Pass Rate of Students in Classes Taught by Distance-Trained Teachers, Before and After Training

Type of Comparison	No. classes compared	Before Training		After Training	
		No. students	Pass rate (%)	No. students	Pass rate (%)
Comparison of different classes at same grade level taught by DE teachers before and after training (1984 and 1987)	6	102	59	100	70
Comparison of same students taught by DE teachers during training (over two grade levels)	18	288	61	290	57

Source: Data collected from schools included in preliminary survey

While it must be stressed that these limited results should not in any way be regarded as a systematic assessment of the impact of the distance training programme upon student achievement, the comparisons of distance- and college-trained teachers do tentatively suggest that the students of the distance-trained teachers included in this sample are doing as well as college-trained teachers when teaching in the same school.

The 'before and after' comparisons are less clear-cut. While some improvement was evident for teachers before and after their training, there was no improvement among the second set of teachers i.e. those still in training. However, this should not be taken as firm evidence that no improvement has occurred. These comparisons are based on different tests given at different grade levels; tests which were never designed to measure changes in achievement over time.

5.5 REDUCING TRANSFERS FROM DISADVANTAGED SCHOOLS

Although not a direct aim of the distance programme, a reduction in teacher transfers between schools is a likely benefit of the distance training course. One drawback with college training is that teachers are generally transferred from their original school upon completion of their training. This practice thus tends to be used by teachers as a means of moving away from remote or disadvantaged schools. By carrying out the training without removing teachers from their school, the distance course tends to cut down on this possibility. Hence, it may be helping to keep trained teachers in the schools which need them most; the disadvantaged schools. There is, of course, no way that the distance course can prevent teachers from applying for a transfer if they should so wish after completing the training however.

5.6 TRAINING FOR MARRIED WOMEN

Around 85 per cent of the women taking the Elementary course and 70 per cent of the women taking the Science/Maths course who were included in the preliminary survey were married, with 85 per cent of these women having children. That their family situation was an important reason for choosing to follow a distance teacher training course rather than attending a residential college is indicated in responses to the preliminary survey. Around 25 per cent of the women gave 'ability to follow the course while at home' as their main reason for joining the distance course, while a further 20 per cent listed 'non-interference with daily life'.

As the majority of teachers in Sri Lanka consist of precisely this group - married women with children - their particular needs in relation to teacher training are of great significance. The distance course offers married women the chance to obtain further training which might otherwise not have been possible, by

allowing them to combine further training with their domestic responsibilities.

This built-in advantage also brings with it potential disadvantages however. While many married women enrol for the distance course because it is convenient for them, this also means that they have a very heavy workload with a home to maintain, a full-time teaching job and the training course. Finding the time to travel to the study centres, attend the contact sessions, read the modules and complete the assignments is not easy under such circumstances.

Because these women are the major clientele of the distance programme, the personnel must be particularly sensitive to their needs. Small improvements such as leaving centres open longer on Fridays and avoiding the practice of having teachers spend one hour copying out assignments by hand can help people whose time is very limited.

Similarly, efforts should be made to accommodate the needs of women with small children and babies. One women trainee we spoke to was in a state of conflict because she could not see how she could attend the coming weekend contact sessions while still breast-feeding. Even though her husband was willing to drive the baby to the centre for feeding, she was very embarrassed to ask the (male) tutor to give her permission to leave the class. Such conflicts could easily be avoided if tutors and staff make a special effort to adjust the centres and the sessions to the needs of their major clients.

CHAPTER 6 THE FUTURE OF THE PROGRAMME

The decrease in enrolments in the distance education programme in recent years has led to some concern about the future direction of the programme. A number of suggestions have been put forward concerning the development of specialised supplementary modules, as well as some new courses. One such course has already begun on a pilot basis: an English course for non-English teachers. We shall discuss some of these suggestions below. The most important thing, however, is to determine whether there is still a need for distance training courses for non-graduate teachers.

6.1 THE CONTINUING DEMAND FOR PROFESSIONAL COURSES FOR UNTRAINED NON-GRADUATE TEACHERS

One reason suggested for the recent lower intakes to the distance education courses has been that there are few untrained teachers remaining in the system. In other words, that the distance education programme has achieved its original aim by clearing the backlog of untrained, non-graduate teachers in the system.

A closer examination of the statistics available, however, suggests that this may not be the case. According to the 1987 School Census, around 24,500 of the 1987 teaching force were untrained non-graduates (see Table 6.1). Of these, around 21,300 teach in the Sinhala medium and 3200 in the Tamil medium.

However, the figures contained in the 1987 School Census considerably underestimate the actual number of untrained teachers currently in the system. Since the Census was carried out, a substantial number of untrained non-graduates have entered the teaching force, and they continue to do so. Although the Ministry is intending to eventually phase out its long-standing practice of employing untrained teachers (see Section 2.6), it is likely to be many years before this aim can be realised. Large numbers of people with A-level and even O-level qualifications are still being recruited into the teaching force, and this practice will continue into the foreseeable future.

The Ministry estimates that approximately 6000 new teachers are required annually to allow for an annual teacher wastage of two per cent, and an annual pupil enrolment growth of 50-75,000. It is intended that 2000 of these teachers will eventually be supplied by the universities (graduates), while the remaining 4000 (non-graduates) will come from the Colleges of Education. However, only seven of the planned 10 colleges are in operation at present, yielding an annual output of only 1500. Consequently, it is expected that a minimum of 2500 untrained non-graduate teachers will be required annually to maintain the present level. In addition, there are currently around 15,000 vacant posts in the teaching cadre. It can thus be expected that the annual recruitment of untrained, non-graduate teachers will be around 4000 until the turn of the century.

Table 6.1. Untrained Teachers in the Teaching Force, 1987 (Certificated and Uncertificated)

Type of Teacher	Lang	Eng	Sci/Maths	Other	Total
CERTIFICATED					
Sinhala					
Male	370	-	417	1158	1945
Female	916	-	708	2171	3795
Total	1286	-	1125	3329	5740
Tamil					
Male	69	-	18	102	189
Female	89	-	20	173	282
Total	158	-	38	275	471
Total					
Male	439	-	435	1260	2134
Female	1005	-	728	2344	4077
Total Certificated	1444	-	1163	3604	6211
UNCERTIFICATED					
Sinhala					
Male	-	1033	759	2289	4081
Female	-	2033	1762	7686	11481
Total	-	3066	2521	9975	15562
Tamil					
Male	-	219	140	714	1073
Female	-	323	153	1216	1692
Total	-	542	293	1930	2765
Total					
Male	-	1252	899	3003	5154
Female	-	2356	1915	8902	13173
Total Uncertificated	-	3608	2814	11905	18327
TOTAL UNTRAINED	1444	3608	3977	15509	24538

Source: School Census, 1987 (provisional figures)

In fact, the recruitment of untrained non-graduate teachers has exceeded even 4000 over the past two years, as Table 6.2 shows. During 1987 about 4000 such teachers were recruited, while it is planned to recruit a further 9000 during 1988. All of the current non-graduate recruits are required to have A-levels apart from those appointed to teach English or to work in the estate sector. In all, around 17,300 untrained non-graduate teachers have been recruited, or will be recruited, since the figures for the 1987 School Census were collected. This means that, in addition to the untrained teachers recruited before 1987, there are presently almost 40,000 untrained non-graduate teachers in the teaching force.

Table 6.2 Untrained Teacher Appointments 1987 and 1988 (since the 1987 School Census)

Qualification	Teaching Appointments			
	1987	1988	1988 (planned)	Total
GRADUATES				
Science	9	-	350	359
Arts	1828	100	-	1928
NON-GRADUATES				
Sci/Maths	1763	250	-	2013
English	1870	1200	-	3070
Agriculture	-	88	-	88
Home Science	-	32	-	32
Primary	-	750	8250	9000
Other	-	44	-	44
Estate Schools	-	-	800	800
Total	5470	2464	9400	17334

Source: Ministry of Education, Education Services Committee

However, not all of these teachers are eligible for the distance course. English teachers, of whom there are around 4000, are currently barred from enrolling. In addition, many of the certificated teachers are older teachers who may be over the age-limit of 45 set for the distance course. This applies primarily to Sinhala-medium teachers, as there are few certificated Tamil-medium teachers. Finally, around 7400 teachers have completed the distance programme, while a further 5500 are currently enrolled (see Table 6.3).

Hence, of the 40,000 untrained non-graduates, almost 26,000 should be excluded from the pool of teachers available for the distance education course. This may be over-estimating the teachers not eligible for the course, as it is possible that some of the certificated teachers are in fact eligible.

Table 6.3 The Number of Untrained Teachers Eligible for the Distance Education Training Course, 1988

	Untrained Teachers	
Total Cert	6211	
Total Uncert	18327	
Total Untrained to Apr 1987		24538
New Appointments 1987		3633
New Appointments 1988		2364
Planned Appointments 1988		9050
Total Untrained, End 1988		39 585
Not Eligible for DE Training		
DE Trainees		
Completed	7400	
Currently Enrolled	5500	
Total		12900
English Teachers (to Apr 1987)		4050
English Teachers (appts 1987, 1988)		3070
Certificated Teachers		6211
Total Ineligible		26231
Total Eligible for DE Training, 1988 End 1988		39 585
		- 26 231
		= 13 354

Sources: Ministry of Education, School Census, 1987 and Education Services Committee; NIE, IDE

Taking into account the recruitment planned for the rest of 1988, at a conservative estimate there will be at least 13,000 teachers who will not yet received, or are not currently receiving, training and who will be eligible for the distance education courses in 1989. Furthermore, as pointed out previously, it is planned that the number of untrained non-graduates be augmented by about 4000 teachers per year.

The implications of these figures for the future orientation of the distance education teacher training programme are quite clear: the need for the distance training of non-graduate teachers will continue for a considerable time. In addition to the backlog of untrained non-graduates from previous years, the current large-scale recruitment of untrained non-graduates adds substantially to the pool from which the distance programme draws its students. In fact, it is quite beyond the resources of the distance education programme to cope with this demand.

That this demand cannot be satisfied by the existing teachers' training colleges is also clear. This year, for example, the Ministry received around 9500 applications for admission to these colleges. The majority of the applications (4500) were for places in Sinhala medium colleges, while around 1500 applied to the Tamil medium colleges. A further 3500 applied to English courses. Of all these, only 1685 were accepted to Sinhala medium colleges and 568 to Tamil medium colleges.

The areas of greatest demand among applicants to training colleges this year were English and primary education, followed by Agriculture, Home Science, Science, Buddhism and Maths (see Table 6.4). However, it is intended to replace agriculture and home science with one general technical subject in the future, so that neither of these subjects will continue as a separate subject. The original intention to develop courses for home science and agriculture teachers within the distance education programme should thus be revised.

Table 6.4 Applications to Teachers' Training Colleges, 1988 (Sinhala Medium)

Subject Area	Applications
English	3500
Primary	1229
Science	445
Mathematics	320
Agriculture	517
Home Science	547
Handicraft	51
Buddhism	385
Roman Catholicism	11
Art	60
Music	113
Dancing	94
Western Music	3
Physical Education	1
Special Education	125

Source: Ministry of Education, Teachers' Training Colleges Branch

Current priorities for teacher training are indicated by the teaching areas into which the Sinhala and Tamil students were admitted in 1988, as shown in Table 6.5. It is these priorities which should guide decisions concerning the future directions of the distance programme.

Table 6.5 Admission to Teachers' Training Colleges, 1988

Subject Area	Admissions	
	Sinhala	Tamil
Primary	524	239
English	387	
Science	155	71
Mathematics	169	49
Agriculture	35	42
Home Science	67	56
Buddhism	78	-
Roman Catholicism	12	10
Art	49	4
Music	70	22
Dancing	50	2
Special Education	89	-
Hinduism	-	50
Arabic	-	6
Islam	-	17
Total	1685	568

Source: Ministry of Education, Teachers' Training Colleges Branch

The size of the demand for training among non-graduates means that the distance training course should continue to concentrate its main efforts upon this type of training during the coming years. However, as it is envisaged that the recruitment of untrained teachers will not continue forever, some consideration can also be given to other areas of need in which the distance education programme could have a valuable input. These are seen as suggestions for the long-term however; given the current scale and resources of the distance education unit, it is not feasible to imagine that any new, large-scale programmes could be taken on successfully at present.

6.2 ENGLISH COURSES FOR NON-ENGLISH TEACHERS

One priority area within education in Sri Lanka at present is the teaching of English. To improve the standard of English among students, the time allocated to English teaching is to be increased and students will begin studying English from Year 1. As well, A-level students are to have the option of taking two of their four subjects in English medium.

In concert with these measures, there has been a drive to increase the numbers of English teachers. As shown in Table 5.3, more than 3000 English teachers have been appointed recently, and English teacher training courses have been expanded considerably.

At present, English courses are conducted for teachers by the Teachers' Training Colleges, the Curriculum Development Centre and the Higher Institute for English Education (HIEE) at NIE. Two teachers' training colleges currently offer courses in English, while the CDC course is a correspondence course which trains O- and A-level teachers as English teachers (PRINSEP). The course run by HIEE is a one-year full-time English enrichment course offered to graduate teachers in all subjects (ELIPNET). This is in advance of future plans to offer some A-level subjects in English. In addition, there is a course for non-teachers with O- and A-level which results in appointment as an untrained teacher upon successful completion of the course (DELIC).

The Institute of Distance Education has also recently entered the field of English enrichment training by deciding to offer a distance course in English for non-English teachers. The course will be carried out on a pilot basis in the Kalutara district. Although it was originally intended to include only 100 teachers in the initial batch, the number of applications (600) was higher than expected and it is now planned to take around 400.

The 20-week course is to be run using the existing infrastructure of the distance education programme, although new tutors and central unit staff will have to be employed. The materials are being prepared by HIEE, in English and simple Sinhala. No materials in Tamil are being prepared at present.

Although there is an urgent need to improve the standard of English among teachers in Sri Lanka, any decision to introduce a new course into the IDE at this stage should be considered carefully. The Tamil programme is running poorly, and there is much work to be done in revising and developing new modules for the current courses in both media. To deal successfully with all of these areas will require substantial effort, and it may be difficult to cope with a new course at the same time.

However, if it is decided to go ahead with this English course, it is strongly recommended that all materials be developed solely in simple English. This will avoid all of the problems surrounding the development of both Tamil and Sinhala materials which are besetting the current courses.

6.3 THE TRAINING OF TEACHERS IN PLANTATION SCHOOLS

During the 1988 SIDA Sector Review it was agreed that the distance education programme would make a more active effort to train teachers in the plantation sector. The plan was to develop a new course to bring voluntary Tamil teachers up to O-level standard, in order to make them eligible for further training within the Plantation Schools Training Programme (PSTP). As well, the Ministry agreed to encourage ex-trainees from the PSTP to enrol in the distance programme by either relaxing entry requirements or by designing special courses for them.

These plans should be given careful consideration before being

implemented in order to avoid the proliferation and duplication of courses which already characterises the field of teacher training in Sri Lanka.

Table 6.6. Plantation School Teachers, Level of Qualification 1986

Qualification	Sinhala M	Sinhala F	Tamil M	Tamil F	All Teachers M	All Teachers F	All Teachers %
Graduates	-	1	14	2	14	3	1
Trained	15	17	216	118	231	135	31
Certificated	3	6	71	43	74	49	10
Uncert. (O-level)	3	21	193	293	196	314	43
Other	5	5	68	98	73	103	15
Total	26	50	562	554	588	604	100

Source: Ministry of Education, Planning Division

That there is a need for training among plantation school teachers is undisputable. As Table 6.6 shows, around 70 per cent of all teachers in these schools in 1976 were untrained. In addition, the schools are seriously understaffed, with some schools having only one teacher for 300 children.

To help overcome these deficiencies, several projects are in operation. One is the PSTP, run by the Ministry of Education within the framework of the SIDA-funded Plantation Schools Education Project. Under this programme, young men and women from the plantation communities with O-level passes are trained for 10 months in mathematics, Tamil, English, Sinhala and pedagogy, in eight regional centres. Many are already working as volunteer teachers. The intention is that those who pass the course should receive teaching appointments in plantation schools as untrained teachers, thus becoming automatically eligible for further teacher training. This would otherwise require an A-level pass. The aim is to bring about a rapid and lasting increase in the size of the teaching cadre in plantation schools. To date, two batches of trainees have passed through the course.

The programme has received some criticism. Because of the severe shortage of teachers in plantation schools, the academic standard of the courses has been set at a low level in order to enable as many as possible to pass. There have also been long delays in appointing course graduates as teachers. Currently, there are about 750 awaiting appointment to plantation schools.

A supplementary scheme to upgrade potential candidates to O-level has also been attempted on a pilot basis, specifically in the areas of Tamil and mathematics. That this was not successful, however, is evidenced by the fact that only five per cent of the participants passed their O-level examination in 1988. Failures were particularly high in mathematics.

Because of these and other problems, it appears unlikely that the

PSTP will continue to be run by the Ministry. No funding has been allocated by the Ministry for the second half of 1988. However, SIDA has indicated its willingness to undertake the funding within the country frame if requested.

Given this situation, there would seem to be great scope for cooperation between the distance education programme and the plantation schools programme. The first obvious area concerns the training of the graduates of the PSTP. Although a new College of Education is being established to train teachers in plantation schools, the demand for training among untrained teachers both from those already in the system and from those coming from PSTP will clearly exceed the capacities of one college. The distance programme should thus make special efforts to recruit these teachers, considering even the establishment of additional study centres if necessary.

The second area of possible activity concerns the PSTP itself. If this programme is to be discontinued in the Ministry, it would seem likely that it could pass to the IDE. However, this will require considerable resources and a large commitment from the IDE. If this programme is to be taken on by IDE, it will be necessary that it be regarded as one of the major thrusts of IDE if it is to have any chance of being successful.

The third area of possible cooperation concerns the upgrading of serving teachers to O-level, in order to make them eligible for the distance courses. Although this has already been agreed between IDE and SIDA, careful investigation of the demand for such a course should be undertaken before any course development begins.

According to our information, many of the teachers with qualifications less than O-level are older teachers who may well exceed the 45 year-old age limit on the distance courses. As Table 6.6 shows, only 176 of the plantation teachers had qualifications below O-level in 1986. That this number has increased substantially since then is unlikely. Hence, the intention to develop O-level bridging courses specifically for plantation teachers should perhaps be reconsidered in the light of other priorities within this sector. This does not apply, however, to possible courses designed to upgrade O-level teachers to A-level in order to make them eligible for the distance education Maths/Science course.

6.4 THE TRAINING OF UNTRAINED GRADUATE TEACHERS

While the need for training courses for untrained non-graduate teachers will continue for the foreseeable future, another urgent need in the field of teacher training concerns university graduates. As is the case with non-graduates, the general practice has been to recruit as teachers graduates without teacher training. Prior to 1985, a limited number of graduates took a full-time diploma offered at the universities. These programmes have since been discontinued, to be replaced by distance courses run by the Open University and the Institute of

Teacher Education at the NIE, in addition to small-scale, part-time courses at some universities. However, the resources of both of these institutions are limited, with the result that there is a very large backlog of untrained graduate teachers in the teaching cadre. We estimate this backlog to be in excess of 20,000 (see Table 6.7).

Table 6.7 Graduate Teachers: Level of Training

Trained		
Post-graduate Degrees in Education	160	
Bachelor of Education	1338	
Graduates with Diploma (pre-1986)	3103	
Open University Post-Grad Diploma (post-1986)	1752	
Institute of Teacher Education, NIE	355	
Total Trained	6708	
Currently Undergoing Training		
Open University	2834	
Institute of Teacher Education, NIE	150*	
Total in Training	2984	
Total Untrained		23 752
Total Graduates		33 444

* repeaters

Sources: School Census, 1985; Open University; NIE, ITE

Although it would clearly not be possible at present for the IDE to offer post-graduate diplomas given the academic calibre of the staff, some consideration should perhaps be given to this in the future. As we have pointed out previously, there appears to be some lack of coordination and cooperation between the different agencies involved in teacher training, even within the NIE itself. Why was the decision taken to introduce two distance teacher training programme for graduates, one at the NIE and one at the Open University? Would it not have been possible to simply expand the facilities of the Open University? Or, if there was a good case for introducing a second post-graduate programme through the NIE, why has there not been more cooperation between the Institutes of Teacher Education (ITE) and Distance Education?

One way in which this could be done is through the use of joint regional centres. Both IDE and ITE run their programmes through study centres but, until now, these centres have been established independently. However, it is encouraging to see that the possibilities for IDE and ITE to share centres are currently being explored. Concentrating resources would facilitate the physical up-grading of the IDE centres, which is sorely needed.

As a further prong in a long-term rationalisation strategy, the transfer of all NIE distance teacher education programmes to the

auspices of IDE could be considered. Or, alternatively, institutes wishing to run their own programmes could run them through the apparatus established by the IDE. This might be a more realistic option in the case of the graduate training programme, for example, given the current lack of academic staff at IDE. Such moves would enable the IDE to become a specialist institution catering to the distance teaching needs of all the NIE institutes, and reduce duplication of scarce resources.

There are many possibilities for the future use of the infrastructure which has been established for distance training. The training of plantation teachers, or the possible training of graduate teachers, are examples of fairly large-scale programmes which could be carried out through the IDE. As well, however, the distance structure could be utilised for short-term retraining and up-grading courses, either replacing or supplementing those presently run by CDC. The identification of these specific needs should constitute one of the on-going tasks of the research and evaluation section of IDE. However, it is vital that needs identification and programme planning be carried out in collaboration with all of the other institutions involved in teacher training.

Parallel with these efforts to establish links across the different teaching training agencies, should be continued efforts to strengthen the two-way links between the distance programme and schools. In this way, the IDE will indeed have the possibility to become the pivotal point in a communication structure covering all aspects of teacher training and school management training, as envisaged in the original project proposal.

CHAPTER 7 CONCLUSIONS AND RECOMMENDATIONS

On the basis of this evaluation, three broad conclusions can be made with regard to the distance education teacher training programme:

1. The distance programme is functioning well and is achieving its main objective, the distance training of non-graduate teachers.

Although the numbers trained have been below initial expectations, the programme operates with a high degree of internal efficiency. The high retention rates and examination pass rates represent a noteworthy achievement for a distance programme, and for this achievement the IDE should be congratulated.

The achievement is marred only by the failure so far to establish a viable Tamil programme. In addition, the Science/Maths course has not achieved the same degree of success as the Elementary course.

The success in the Sinhala programme has been achieved mainly through high levels of external and intrinsic student motivation, the mixture of high quality printed material with regular face-to-face sessions, and the decentralised organisational structure, which fosters the development of a close tutor-trainee relationship.

Whether the programme has been similarly effective in fulfilling its training objectives at the classroom level is more difficult to determine. The drawing of firm conclusions in this regard would require a more extensive study comparing distance- and college-trained teachers.

Nevertheless, the feeling of the evaluation team was that the distance programme has had some impact upon teaching practices. Although the distance-trained teachers still tend to teach mainly through 'chalk and talk' methods, some improvements were apparent. The distance-trained teachers used teaching aids more than is usual, and had gained in subject knowledge. They were also said to be more interested in their work than untrained teachers, and had greater understanding of the social and psychological aspects of teaching.

Through the distance programme, teachers have been sensitised to innovative teaching methods. However, they are hampered at present from introducing these methods by the lack of resources in schools, the large class sizes, and prevailing attitudes. If these factors change, the distance-trained teachers will be in a better position to utilise the knowledge gained in the distance courses.

2. Distance education has become established among Sri Lankan teachers and educators as an acceptable mode of delivery for teacher training.

The distance education programme has official recognition as a teacher training qualification, equal in status to that carried out in teacher training colleges. Successful completion of either of the distance courses is followed by automatic promotion to the position of trained teacher.

The distance courses have also gained wide acceptance among teachers. Although many teachers would prefer institutional training if given the choice, there are just as many who prefer to study at home because of their family responsibilities. In this way, the distance courses are of special benefit to women. In general, the impression gained was that, once they have begun the courses, teachers are very positive towards them.

Even principals, although expressing some reservations, showed themselves as generally positive towards the programme.

3. Given the current levels of recruitment of untrained, non-graduate teachers, there will be a market for the current distance education courses into the foreseeable future.

When the distance education programme was established in 1984, the expectation was that it would have achieved its purpose by 1989. By then, it was estimated, the programme would have cleared the existing backlog of untrained, non-graduate teachers in the teaching force.

However, a large number of the non-graduate teachers in Sri Lankan schools are still untrained. One reason for this is that the initial estimates of the number of trainees which could be taken into the distance education programme every year have not been realised. Another, more important, reason is that the Ministry has continued to add to this backlog by recruiting large numbers of untrained teachers in recent years. As a result, there will be around 40,000 untrained non-graduates in the teaching force by the end of 1988, of whom at least 13,000 (at a conservative estimate) will be eligible for the distance teacher training courses.

In addition, the Ministry estimates that it will need to recruit a further 4000 untrained non-graduates per year for at least another decade.

The current annual intake of the distance programme in both Sinhala and Tamil is about 2500. The current annual intake of the teacher training colleges is around 2300. This means that the combined training capacity of these facilities is currently only 4800.

As it is unlikely that the capacity of teacher training colleges will be increased, the main responsibility for clearing the current backlog, in addition to providing training for the new recruits, will fall upon the shoulders of the distance education programme.

Nevertheless, the IDE will eventually have to look for new avenues in which to expand its activities. The infrastructure established by the IDE is a valuable resource which could be utilised in the future to deliver many different short- and long-

tern courses developed either by IDE or other institutes. One such possibility is that the distance programme link up with the SIDA-funded Plantation Schools Education Project, and develop a training programme for the untrained teachers in plantation schools. Our general view is that the IDE should see itself in the long-term as a delivery system servicing the course needs of other institutes within NIE and the Ministry.

7.1 IMPROVING SYSTEM EFFICIENCY

While the machinery which has been established for the conduct of distance education in Sri Lanka is working efficiently, there is nevertheless room for improvements and modifications.

These have been found to concern mainly the IDE, the regional study centres, the links with schools, and the course materials.

With regard to the central unit of the distance programme, the Institute of Distance Education, there is a severe shortage of staff which is hampering the efficient running of existing programmes, and the development of new courses and materials. This is affecting particularly the running of the Tamil programme, the printing of materials, the revision of materials and the development of possible new modules.

The administrative structure of the IDE is also somewhat poorly defined, with the duties attached to individual posts unclear. Many staff members fulfil multiple duties, so it is unclear to which section they really belong. Because of this, the work of some sections, such as the research and evaluation section, has been neglected while staff perform other more pressing, routine duties.

The regional study centres are a great asset to the programme, but require up-grading.

The most immediate need concerns physical facilities. Many centres are small and over-crowded, lacking shelving and cupboards in which to store materials. There is also a lack of basic reference material, as well as the science equipment and consumable materials necessary to carry out the science practical work.

As a consequence of the lack of space, several centres are forced to function as 'split centres', so that all of the contact sessions occur away from the resource centre itself. This causes unnecesary inconvenience to teachers, as modules cannot be collected during the contact sessions.

Perhaps the most serious shortcoming of the distance programme to emerge from this evaluation concerns practice teaching. Although the programme guidelines call for tutors to make three school visits to each trainee per year, it is rare that this occurs. Many trainees reported receiving only one visit during the entire

three-year course.

The main reason for this is the shortage of full-time tutors at the study centres. IDE aims at a tutor:trainee ratio of 1:30; in fact, it is more than double this.

If the distance programme is to have a real impact upon teaching practices in the classroom, it is important that the practice teaching component of the courses be improved. The trainees were themselves aware of the lack of guidance and supervision, and often asked that this aspect be strengthened.

A related request concerned the contact sessions. Because of the weaknesses in the practical component of the programme, many trainees saw a need for more contact sessions. This would provide more opportunities for practice teaching, such as by teaching to peers. And it is particularly important for the science/maths trainees.

The need for more contact sessions was voiced particularly by science/maths trainees. These trainees consistently criticised the distance programme for having too little science practical work in the programme. Many trainees cannot carry out all the experiments in the modules due to the lack of resources in their schools. In addition, they must learn how to conduct practical lessons themselves. Hence, the contact sessions must compensate for the difficulties trainees have in carrying out the experiments, as well as providing more opportunity for observing demonstration, or 'model', lessons. All of this indicates the need for a greatly increased emphasis upon practical work in the Science/Maths course.

A final comment on the study centres concerns the general principle of 'putting the customer first'. If the centres are to function as effective resource centres, they must keep the needs of their clients clearly in mind. A number of trainees (mainly women) mentioned to us several small difficulties they faced in doing the distance programme, which we felt could easily be overcome. The collection of modules on Friday, for example, was a problem because they were not granted leave from school, but the centre tutor would not issue modules after two o'clock in the afternoon. Another concerned the copying out of assignments, and a third the difficulty of attending contact sessions while breast feeding. There are doubtless many other examples. Although these problems may seem small, they do contribute to dropout and cause unnecessary hardship to people who already have a very full load.

An important weakness in the distance programme which emerged from the evaluation is the poor linkage with schools. The strengthening of this link could benefit the distance programme in many ways. By keeping principals and other school administrators better informed about the programme, current problems relating to the granting of Friday leave, the lack of practice teaching supervision, and the falling enrolment could perhaps be alleviated.

Concerning future developments in the course materials, first priority must be given to the production of the Tamil modules.

Second priority should be given to the revision of the Sinhala modules, which have not been revised since the courses began. Information on errors and shortcomings in the modules has been collected by the research and evaluation section, so this work can now proceed.
A related issue is the revision of assignments. The assignments included in the modules have so far been used only every third year. In the two intervening years, assignments have been issued to centres on loose sheets, with only one sheet per centre. This has led to much inconvenience among the trainees, who are forced to stand and copy out by hand all of the assignment questions.

Another problem concerning assignments is the turn-around time, which was reported by trainees to be three-four weeks. This could perhaps be reduced by simplifying the assignments (e.g. to multiple choice questions) or decreasing the number of assignments required. At the same time, a simplified system for reporting assignment grades to IDE could reduce the heavy load presently carried by IDE in the recording of grades on student progress cards.

A major shortcoming in the modules revealed by this evaluation concerns the academic standard of the science modules. The upgrading of these modules to A-level standard is a matter that should receive immediate attention.

The evaluation was also able to pinpoint a number of important content areas in both the Elementary and Science/Maths courses where additional modules would be of value. These included the elementary Beginning Science course, multigrade teaching and special education. In addition, some trainees voiced the desire to have extra modules exploring specific topic in the current courses in greater depth. If this idea is eventually acted upon, the precise areas in which trainees would like to have these extensions modules would have to be determined by the research and evaluation section.

7.2 RECOMMENDATIONS

On the basis of these conclusions, it is thus recommended that:

7.2.1 The Institute of Distance Education

1. Additional staff be appointed to the IDE as a matter of urgency.

2. The present rule on minimum experience required be suspended by creating acting appointments.

3. Someone fluent in Tamil be appointed as coordinator of the Tamil programme.

4. Administrative machinery be created for the regular review

of the revision of IDE syllabi and course materials.

5. Printing facilities be made operational as a matter of urgency by

   i) employment of a printer against a vacant post in the establishment
   ii) provision of materials and resource allocation for paper etc.

   Should NIE centralise printing facilities later, the staff and equipment would be absorbed into the new unit.

6. A new section be created with structures to separate Course Development (academic) from Material Production (technical).

7.2.2 The Regional Study Centres

1. Means be found to improve the level of material resources (furniture, shelving, storage facilities and reference literature).

2. An annual grant be introduced for the purchase of consumable materials on a per capita basis as for schools.

3. Efforts be made to change the venues of split centres so that all facilities (teaching and storage) are on the same premises.

4. Each course provide a list of appropriate background books for purchase by centres.

5. The study centres be provided with their own science equipment and consumable materials wherever possible.

6. Centre opening times be extended on Friday afternoons to accommodate students who are unable to get time off from school in the morning.

7. There be greater flexibility towards married women trainees regarding domestic arrangements, nursing mothers etc.

8. The IDE research section carry out a detailed survey of resources and facilities available at the study centres and make specific recommendations to Provincial Councils for upgrading.

9. IDE establish guidelines for organisation of study centres concerning opening times etc. with the guiding principle being the needs of the trainee.

10. The number of weekend and five-day contact sessions with tutors be increased.

11. Peer group teaching sessions be introduced during the contact sessions.

12. More part-time tutors be recruited through advertising. Service as part-time tutors should count as distance teach-

ing experience if tutors should seek employment at IDE.

13. Tutor visits to classrooms be increased from the present one per year to one per term (more part-time tutors or fewer students).

7.2.3 School-Course Liaison

1. Care be taken to ensure that the study calendar for contact sessions does not conflict with the school calendar of non-government schools, especially Muslim schools.

2. Attempts be made to coordinate the study programme with that of short courses involving teacher absences from school to avoid undue strain on the school timetable.

3. Short distance teaching packages be prepared and sent to all principals of trainees to
   i) give them some indication of the operation of the distance education programme
   ii) inform them of where they can be of assistance to the trainee
   iii) brief them on the objectives of the courses and course outlines.

4. Annual information regarding availability of courses be sent directly to all schools as well as through the regional education officer.

5. Active support to trainees by principals and other teachers in schools (possibly including supervision of teaching practice) be encouraged.

7.2.4 The Course Materials

1. The research and evaluation section to carry out a survey through the study tutors and current third-year trainees to identify modules which require revision.

2. All modules be accompanied by evaluation forms for return by students after completion of the module. This data to be used to assist development of new modules and revision of the old.

3. A committee be appointed to review the content of Science/Mathematics course with the view to upgrading to A-level.

4. Consideration be given to the development of 'extension modules' where students have expressed a need.

5. Additional modules be developed to cover the Beginning Science course introduced in Grades 4 and 5.

6. Additional modules on multigrade teaching be considered.

7. Additional modules on special education be considered.

8. Minor module revisions be sent to centres on 'revision sheets' for insertion into modules when issued.

9. Consideration be given to supplying trainees with simple science kits as part of the course materials, to assist them in carrying out the required practical work in their schools.

10. Course assignments be compiled annually, printed by IDE and distributed to study centres in sufficient numbers for students (assignments to be dropped from modules when reprinted).

11. A system be introduced which allows a reduction in the number of assignment grades or in the amount of information which must be recorded on individual student progress cards at IDE.

12. Assignments be simplified or possibly reduced in number to help reduce the marking turn-around time.

7.2.5 The Future of the Programme

1. Present courses be extended for a further three years (review after two years).

2. Consideration be given to the eventual introduction of courses for plantation school teachers. A survey to be carried out by the research section as to the need for such a course, the nature of the course, and the additional resources required by IDE to run it.

3. Cooperation with other institutes within the NIE, as well as with outside institutions, be an important element in the planning of future programmes in order to avoid duplication of scarce resources.

4. The research and evaluation section to have as one of its long-term, on-going tasks the identification of distance training needs within the teaching cadre.

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APPENDIX 1 METHODOLOGY OF THE EVALUATION

1.1 The Preliminary Survey

Objectives 3, 4 and 5 formed the preliminary survey, which was carried out by the Sri Lankan consultant prior to the arrival of the two foreign consultants. During this survey, data was collected from graduates from the programme, dropouts, principals and parents by means of questionnaires and structured interviews. Classroom observation was also used to observe the teaching practices of the course graduates.

The first stage of the survey was a questionnaire survey which took place from February - May, 1988. Questionnaires were mailed to a random sample of graduates from the 1984 cohort, the only cohort which had so far completed the distance programme. Graduates from both the Elementary and Science/Mathematics courses were included. Questionnaires were also sent to a random sample of those who had dropped out from these courses.

The second stage consisted of an in-depth study. A further sample of graduates from the 1984 cohort were selected for in-depth interviews. The teaching practices of these teachers were also observed by trained observers. In addition, principals or section heads were interviewed concerning the impact of the distance programme upon those teachers selected for the in-depth study.

The third stage of the study comprised a limited number of unstructured interviews with the parents of children taught by teachers selected for the in-depth study.

The Sampling Strategy

1. The Questionnaire Survey

The main sample for the questionnaire survey was drawn from graduates from the 1984 cohort. This sample was made up of two sub-samples: graduates from the Elementary course, and graduates from the Science/Mathematics course. In addition, there were two sub-samples drawn from the dropouts from the Elementary and Science/Maths courses respectively.

The main sample was drawn by selecting 20 per cent of each of the two sub-populations of course graduates (Elementary and Science/Maths) who had remained in the same school after completing the programme. For the dropouts, a sample of 25 per cent was selected from each of the two sub-populations.

One further dimension used to determine the final sample was the sex of the teacher. On the basis of the sex composition of the original cohort, it was decided that 75 per cent of all the

samples should be made up of women.

The enrolment of teachers in the different study centres was also taken into account in drawing the sample.

The sampling frame, target sample sizes, achieved sample sizes and response rates are presented in Table 1.1.

As the table reveals, the response rates for all groups were fairly low. This was particularly true for the dropouts, for whom the records at IDE were less up-to-date. Unfortunately, the limited time available for the evaluation study did not allow us to investigate the question of missing data. As in any postal survey, however, we must assume that the teachers who answered the questionnaire were generally more motivated and positive towards the distance course than those who did not. This limitation should be borne in mind when interpreting the data presented in this report.

Table 1.1 Sampling Frame, Target and Achieved Sample Sizes, and Response Rates for the Questionnaire Study in the Preliminary Survey

Population/Sample	Elementary	Science/Maths	Total
Sampling Frame			
Original Enrolment, 1984	3007	1591	4598
No. of Graduates in Same School, 1988	2463	1215	3678
No. Dropouts	332	277	609
Target Sample Size			
Graduates (20%)	500	250	750
Dropouts (25%)	85	70	155
Achieved Sample Size			
Graduates Total	269	104	373
Women	195	71	266
Men	74	33	107
Dropouts Total	31	26	57
Women	17	17	34
Men	14	9	23
Response Rate(%)			
Graduates	54	42	50
Dropouts	36	37	37

2. The In-Depth Study

For the in-depth study, 114 teachers in 84 schools were selected. The interviews with the teachers and their principals were conducted by a team of teacher trainers from the Open University and

teachers' training colleges. This team carried out the classroom observation exercise as well. Two lessons were observed for each teacher.

The team members also interviewed some of the parents of children taught by the teachers selected. Their final task was to collect comparative or longitudinal data on the achievement of pupils taught by distance-trained teachers, where this was available.

The Measurement Instruments

The measurement instruments consisted of mail questionnaires for teachers and dropouts in the questionnaire study, interview schedules for teachers and principals in the in-depth study, and a classroom observation schedule.

In addition to basic bio-data, the questionnaire and interview schedules for teachers questionned them about their attitudes to the modules, the learning activities, the assignments, the tutors, the centres, the course content (especially in relation to teaching skills), the contact sessions, and the operation of the course. Most of these questions were multiple-choice. A series of open-ended questions also probed reasons for joining the course, perceived benefits and weaknesses, and proposals for improvement.

The dropouts also answered the bio-data sheet, as well as questions concerning how long they had followed the course, why they joined the course, why they dropped out, and how the course could be improved.

The aim of the interview schedule for principals was to collect an 'outside' opinion about the distance programme and its impact upon teaching skills. Accordingly, principals were asked to evaluate the teaching quality of those teachers included in the in-depth study, their classroom discipline and the achievement of their students. They were also asked for their general impressions of the distance programme.

The classroom observation schedule collected information along the following dimensions: lesson preparation, teaching methods, student behaviour and motivation, the evaluation of pupil achievement, and aspects of the teacher's personality. All dimensions were rated on a three-point scale.

There was no specific interview schedule for parents. Instead, interviewers were given general guidelines, concentrating upon their opinion of the teacher, his/her interest in teaching and the child, and the child's achievement.

Results of the Preliminary Survey

The analysis and results from the preliminary survey were written up by the Sri Lankan consultant before the evaluation study began. This report, entitled "Draft Report of a Study of the Elementary and Mathematics/Science Teacher Education Courses (1984-1987) Conducted by the Institute of Distance Education", is available from SIDA in Stockholm or Colombo as a separate annex

to the present report. Copies of the questionnaire and interview schedules are also available on request.

The data and conclusions from the preliminary survey were incorporated into the present report, along with the observations and interviews carried out by the evaluation team.

The Evaluation Study

The evaluation study was conducted by the full team of consultants.

In addition to the report of the preliminary survey, information was obtained from the following sources:

a) reports and other documents listed in the bibliography

b) visits to schools, Study Centres and other institutions

c) interviews with officials from the Ministry of Education, the National Institute of Education, the Institute of Distance Education and SIDA, listed in Appendix 2.

The evaluation study took place from June 6 - July 5, 1988.

APPENDIX 2 LIST OF PEOPLE INTERVIEWED

Ministry of Education

Mr E. L. Wijemanne, Secretary
Mr K. K. V. S. de Silva, Director, Foreign Agencies
Mr H. G. C. A. T. Jayasekera, Director, Sport and Extra Curricular Activities

Department of Planning

Mr D. Gunaratna, Director
Mr S. Mallawarachi, Education Officer
Mr H. M. U. B. Galagoda, Planning Officer
Mr Ilapperuma, Officer

Teachers College Training Branch

Mr S. K. Nettananda, Director
Mr K. A. V. Karunanayake, Education Officer

Education Services Commission

Mr S. A. Premeratne, Assistant Secretary

Plantation Schools Section

Mr Jorgen Persson, Consultant
Mrs R. Selvaratnam, Officer

National Institute of Education

Mr D. A. Perera, Director-General
Mrs C. Abeyadeva, Director, Primary Education Institute
Mrs P. Kudaligama, Director, Institute of Teacher Education
Mr C. M. Ariyawansa, Director, Staff College for Educational Administration

Institute of Distance Education

Mr L. Amaragunasekera, Director
Mr B. A. Jayasekera, CPO, Production
Mr K. A. Piyatissa, CPO, Production
Mrs R. R. Abayawardena, CPO, Study Support Services
Ms S. Deverani, APO, Student Management
Mr A. Sivaraja, Design and Production
Mr A. B. Somadasa, APO, Production and Layout
Mr K. Amaratunga, CPO, Administration

Department of Examinations

Mr W. S. Perera, Commissioner
Mr A. Vedamulla, Additional Commissioner

SIDA

Mr P. Sönnerby, Programme Officer, Colombo

Ms B. Falkman, Programme Officer, Stockholm (formerly Colombo)
Mr B. Ekman, Programme Officer, Stockholm (formerly Colombo)
Mr L. Bellander, Programme Officer, Stockholm

SIDA Consultants

Ms C. Pieris, former Director of Primary Education, Ministry of Education

Dr R. Flinck, University of Lund and consultant to the distance education programme

Ms A. Wångdahl-Flinck, University of Lund and consultant to the distance education programme

Prof. A. Little, University of London, consultant to PSEP.

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